

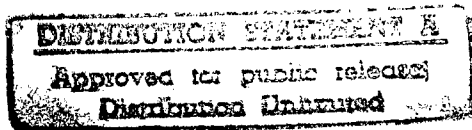
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SELECTED ECONOMIC TRANSLATIONS
ON EASTERN EUROPE

(178th in the series)

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INTRODUCTION

This is a serial publication containing selected translations on all categories of economic subjects and on geography. This report contains translations on subjects listed in the table of contents below. The translations are arranged alphabetically by country.

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CZECHOSLOVAKIA

Manpower in Czechoslovak Agriculture

[This is a translation of an article by Vladimír Vacha and Jan Vrány in Zemedelska Ekonomika, Vol XXXII, No 11, November 1959, Prague, pages 809-826; CSO: 3448-N]

Preface

The rate of growth of our agricultural production, which until last year did not surpass the prewar level, does not begin to correspond either to the potential and reserves of our agriculture or to the needs of our society.

The directives of the Eleventh Congress of the KSC [Communist Party of Czechoslovakia] charge the workers with a difficult but realistic task: to achieve a 40-percent increase in agricultural production by 1965 and to eliminate the serious disproportion between agricultural and industrial production. The disproportion between supply and demand of manpower in agriculture is one of the reasons for the shortcomings in the utilization of the soil fund and the slow rate of growth of intensified production and productiveness of agricultural work.

The purpose of this article is to evaluate the development of manpower in Czechoslovak agriculture on the basis of available literature and to point out ways to ensure adequate manpower in agriculture. This will also help to answer the question that is often being asked--namely, whether Czechoslovak agriculture is really suffering from a shortage of manpower. Our article calls for improved methods, especially in matters dealing with statistics on manpower in agriculture.

Reproduction of Manpower in Agriculture

The cadres represent the most important part of the productive forces and have therefore a decisive significance in all stages of building a socialist society. In consideration of the solution of our problem, the actual tasks vary during the different stages of building socialism.

The problem of cadres in agriculture is very significant in the period of cooperative collectivization. The transition from a scattered small-scale to the socialist large-scale production requires thorough planning to assure the supply of manpower in both quantity and quality for agricultural production. In this connection we shall analyze the all-important factor of manpower reproduction in agriculture.

Under socialism the characteristic means of reproducing cadres are the increase of population and of workers, the improvement in the qualifications of workers, and the consistent rise in the material and cultural standards of the population.

In analyzing the reproduction of manpower in a specific sector of the national economy it will be necessary to follow in the first place the development of the manpower supply. On a nationwide economic scale the reproduction is identical with the over-all growth in manpower. The same does not necessarily apply to individual sectors. The manpower reproduction process is closely tied to its distribution among individual sectors in accordance with the needs of the national economy. The size of manpower in a specific sector will depend on the production tasks and the labor productivity within that specific sector. We shall therefore evaluate the reproduction of cadres in agriculture from the viewpoint of assuring a more ample socialist reproduction of manpower for agriculture.

In addition to the size of the labor force, we have to consider its composition--particularly the age factor. The process of manpower reproduction is a long-range proposition. Emphasis is therefore placed on the distribution of youth among individual sectors in order not to disturb the proper age structure. The distribution of youth is guided by present manpower requirements, as well as by future changes in the manpower requirements of individual sectors to avoid having to go time and again through the unnecessary procedure of distributing manpower. We have to follow the progress in qualifications among workers in general and assure continuity

of production in specific categories of workers in particular. An important indicator in our agriculture is the employment of women. The problem of manpower in agriculture has to be solved in terms of territorial factors as well; the demand and supply of manpower varies as a result of differences in the historical background of individual regions.

Higher reproduction of manpower in a specific sector is closely connected with higher reproduction in the entire national economy. We therefore have to watch the movement of manpower between individual sectors, examine any new distribution of manpower, the creation of a material basis for its stabilization, etc. In this connection, an analysis of the personal income of agricultural workers as well as of elements determining the amount of income will be very helpful. We also have to keep endeavoring to discover reserves for a higher reproduction of cadres--in other words, a higher employment of rural population, intensified improvement in qualifications, etc.

At this stage we are unable to evaluate all the problems involved without taking into consideration the special conditions inherent in the reproduction of manpower in individual sectors. There have been changes in manpower reproduction as a result of changes in production relations and in manpower development in rural areas; the reproduction of small producers was replaced by socialist reproduction.

Our article does not permit us to engage in the entire complex of these problems; we shall therefore limit ourselves to evaluating specific aspects of the manpower reproduction process in Czechoslovak agriculture.

* * *

Agriculture is a sector of the national economy and its mission during certain stages of social development is to carry out a highly significant task--that of being a source of manpower for other sectors. The historic process of shifting manpower from agriculture to other sectors of the national economy is based on the growth of labor productivity in agriculture.

The higher the social labor productivity, the less time the society has to dedicate to the production of the neces-

sities of life, in particular of food. As a result, the society will have more time left to produce things that make work and living easier, regardless of whether the products are for personal or production use.

The growth of labor productivity in agriculture changes the system of work from manual labor to mechanized work. The growing labor productivity carries with it a relative decline in the agricultural population; in countries with advanced production, such a decline is absolute.

The trend of part of the labor force to shift from agriculture to other sectors of the national economy varies in its pattern according to the social system. Under capitalism, the trend is influenced by the irregular development of the capitalist economy and is closely linked to widespread industrial unemployment, disguised rural unemployment, and the impoverishment of the majority of the rural population. The trend expresses the conflicts of the capitalist society. Difficult living conditions lead the population to leave the villages and go to the cities, but the trend is halted by the lack of employment opportunities offered by industry.

Development and Composition of Manpower in Agriculture

There have been considerable changes in the development and composition of manpower in Czechoslovak agriculture, particularly since the war. The movements of agricultural manpower may be followed with the help of the data given below on persons permanently employed in agriculture¹ as secured by the State Statistical Office (Table 1).

Table 1

Development of Number of Persons Permanently
Engaged in Agriculture (in thousands)¹

Date		Total CSR	Czech Krajs	Slo- vakia
27 May	1930	3,637 ²	2,379	1,158
	1946 ³	2,565	1,588	977
	1947 ³	2,335	1,400	934
31 December	1943	2,222	1,319	902
	1949	2,127	1,209	918
	1950 ³	1,923	1,112	811
1 January	1951	1,894	1,093	802
	1952 ³	1,653	1,006	647
	1953	1,615	982	633
	1954	1,672	996	676
10 January	1955	1,797	1,051	746
1 February	1956	1,839	1,066	773
15 December	1956 ⁴	1,756	1,004	752
1 February	1958	1,692	978	714

¹Excluding MTS [machine-tractor station]. In 1958 there were 52,000 MTS workers in CSR.

²Including forestry--i.e., approximately 100,000 persons.

³From the records of the government commission in charge of analyzing the development and present conditions of market relations between town and country.

⁴Data effective 15 December 1956 will hereinafter be considered to be in effect for 1957.

Source: Statisticka Rocenka Republiky Ceskoslovenske 1958.

We wish to comment here on the reliability of our data: The prewar period may be studied from two sources: the census of agricultural establishments of 27 May 1930 and the population census of 1 December 1930. The data obtained differ in each of the two instances, because the objects of the census were not defined uniformly. The agricultural census was based, of course, on the agricultural establishment as a statistical unit; the population census took the physical person as a statistical unit. Thus persons owning land which they managed and who were also engaged in business were listed as businessmen in the population census; the agricultural

census qualified them as persons engaged in agriculture, because they managed the land they owned. The census of agricultural establishments has therefore at least half a million more agricultural owners and tenants. The lack of uniformity in the definition of the object of census extends also to family members; as a result, the number taken by the census of persons permanently engaged in agriculture is actually lower by more than one million. A comparison between the number of permanently engaged persons made according to the census of agricultural enterprises and the population census of 1930, on which comparisons are generally based, points to a considerable manpower reserve. This was caused by the agrarian overcrowding of rural areas during the First Republic, the hidden and incomplete employment, and the opportunity for owners to operate another business with a minimum of participation in agricultural production. The prewar and postwar data on persons permanently engaged in agriculture may be used for formal comparison, but there are actually big differences if we evaluate the participation of these workers in production and their usefulness for agriculture.

The reliability of the data listed in Table 1 may be taken with some reservations (the data change from year to year, depending on minor changes in the surveying plan, on the differences in cut-off dates, and on the responsibility of people gathering the data), but it is evident that the data listed express in principle the actual manpower situation.

Table 1 shows that during the postwar years the manpower in Czechoslovakia shifted to a considerable extent from agriculture to other sectors, mostly to industry, where the demand for manpower due to industrialization was the strongest. Compared with 1930, the total number of persons engaged in agriculture dropped by more than one half. The drop proceeded differently in the Czech krajs and in Slovakia, because of the difference in their historical background (Table 2).

Table 2

Comparative Numbers Showing the Development of the
Number of Persons Permanently Engaged in
Agriculture (1930, 1946 = 100 percent)

Year	CSR		Czech Lands		Slovakia	
	1930 =100	1946 =100	1930 =100	1946 =100	1930 =100	1946 =100
1930	100	138	100	150	100	119
1946	73	100	67	100	84	100
1947	66	91	59	88	81	96
1948	63	87	55	83	78	92
1949	60	83	51	76	79	94
1950	54	75	47	70	70	83
1951	54	74	46	69	69	82
1952	47	64	43	64	56	66
1953	46	63	41	62	55	65
1954	47	65	42	63	58	69
1955	51	70	44	66	64	76
1956	52	72	45	67	67	79
1957	50	68	42	63	65	77
1958	47	66	41	62	62	73

The drop in manpower during the postwar years was caused especially in the Czech krajs by the expulsion of the Germans. The question arises whether the shift in manpower away from agriculture did not occur already during the war and right after the liberation. To answer the question we may revert to the censuses of 1930 and 1946 and make some corrections, because the census principles were identical for both. The census of persons engaged in agriculture made in 1946 covered all agricultural establishments (except strictly forestry) with a total acreage in excess of 0.50 hectares; the data of 1930 must therefore be corrected by eliminating persons working in agricultural establishments of less than 0.50 hectares and those working in strictly forestry operations.² After corrections, the number of persons permanently engaged in agriculture in the Czech krajs amounted to approximately 2,222,000 in 1930; in 1946 it dropped to approximately 1,588,000--a drop of 634,000 persons or 28.5 percent. Comparing the percentual drop with the number of workers of German nationality engaged in agriculture in relation to the over-all number of persons engaged in agriculture, which amounted to 25.3 percent, we shall find the answer to the difference of 28.5 percent less 25.3 percent in the shift of manpower of Czech nationality to other sectors, because at the time of the census in 1946 the transfer of Germans was almost completed.³

The following years evidenced a sharp drop in the number of persons permanently engaged in agriculture; the trend lasted until 1954. Before then, the movement of manpower proceeded without systematic control: The drop in manpower in agriculture was not compensated by either increased mechanization or by growth in the labor productivity. That was at a time when the cooperative system was in its starting stage and when agricultural production was changing to new techniques offering better yields. The sharp drop in manpower during those years caused a large disproportion between the supply and demand for labor in agriculture.

Until 1953 there were no provisions to stop the flow of manpower away from agriculture. The directives of the Tenth Conference of the KSC decreed, as one of the principal conditions for increasing agricultural production, the enlistment from 1954 to 1957 of 320,000 workers into agriculture, of which at least 70,000 were for border areas.

The directives for recruiting agricultural manpower were successfully fulfilled⁴ but were counteracted by a reverse process evidenced by a sharp manpower drop, due particularly to the old age of agricultural population. We shall therefore analyze the results of the two trends expressing the over-all number of agricultural workers.

In early 1955 there was an increment of close to 125,000 permanently active workers caused by lowering the age for required school attendance. Two grades left school in 1953 at the same time and they strengthened the lowest age group of permanent agricultural workers. We must not overestimate the total increment, because it was not gained by recruitment only but through a series of other circumstances. The dissolution of a specific number of JZD's of Types III and IV and the departure of individuals from cooperatives caused an increase in the number of permanently active persons in the private agricultural sector, which was also joined by members of families who only assisted or did not do any work at all in the JZD's. In 1955 the number of auxiliary but elsewhere not employed persons was 90,260 persons lower than in the preceding year in Czechoslovakia. We may safely assume that the majority of them did not change their employment, and we therefore conclude that a shift took place between the number of auxiliary and elsewhere not employed persons and those permanently active in agriculture. The increment in the number of persons permanently engaged in agriculture in 1955, amounting to 42,000, was to a great extent influenced by this shift.

During 1956 the size of the permanent labor force registered another decline of almost 83,000 persons. Considering the recruitment of agricultural manpower amounting to a gain of several tens of thousands of workers⁵ during 1956, the actual drop in the number of permanent workers is much sharper than the drop which we listed on the basis of the differences obtained on paper.

The data of the most recent records compiled as of 1 February 1958 evidence that the drop in the number of workers permanently engaged in agriculture was stopped only temporarily; their number decreased by 64,000 persons compared with the end of 1956. The question arises whether the drop registered during the last two years is commensurate with a drop in the demand for manpower or whether we are again witnessing a deepening imbalance between the demand for and supply of agricultural manpower. The question may be answered only after an examination of additional elements.

The method of checking the employment situation in our agriculture, based only on the data of permanently engaged persons, offers neither a complete nor an accurate solution. A considerable number of persons are engaged in agriculture in an auxiliary capacity by working for JZD's and for the private sector; they are over 14 years of age and are permanently employed either by another agricultural establishment (of the state or public sector) or, as is usually the case, by another sector of the national economy. They may also be persons not having any permanent employment at all and working in agriculture on an auxiliary basis only (Table 3).

Table 3

Development of the Number of Persons Engaged in CSR Agriculture in an Auxiliary Capacity (in thousands)

Groups of Agricultural Establishments	10 January 1955	15 December 1956	1 February 1958
Type III and IV JZD's	71	87	268
Private sector	<u>1,197</u>	<u>1,252</u>	<u>1,130</u>
Total	1,269	1,340	1,398

Source: Statisticka Rocenka MZLH 1957

Table 3 shows that the number of auxiliary workers has been rising during recent years and that the gradual trend toward cooperative management also changes their status, because they become auxiliary workers in JZD's. The evaluation of the over-all situation of agricultural manpower requires the identification of the category of auxiliary workers, because their number reaches 82 percent of the number of permanent workers and because their share among persons engaged in agriculture is steadily rising. The evaluation of the influence of this category of workers, in connection with the effort to assure adequate manpower for agriculture, is a difficult task, because the definition of "auxiliary" comprises manpower with a varied range of work participation.

There is another question: it concerns the accuracy with which the number of permanent workers is being established. It often happens that records show fictitious shifts between the groups of permanent and auxiliary workers. To cite an example, we refer to the fact that the drop in the number of permanently engaged persons is mostly caused by the fact that when new cooperatives are founded the women of agricultural families are not always grouped among permanent JZD workers even if they continue to do agricultural work. This is a matter to be studied by agricultural statisticians; they should look more closely at the classification of workers according to their participation in production. The program for the world census of agriculture⁶ (the broader term is the expanded list) lists the classification of agricultural workers according to whether they worked more than one half, one third, or less than one third of a season; we believe that our statistical workers should pay more attention to these questions.

The evaluation of the manpower shortage in our agriculture should consider the changing employment picture in connection with the changing size of the agricultural and arable lands (Table 4).

Table 4

Amount of Agricultural and Arable Lands per
Permanent Agricultural Worker

		Size per Permanent Agri- cultural Worker					
		as of 15 Decem- ber 1956			as of 15 Decem- ber 1957		
Group of	Land	Czech Slo-			Czech Slo-		
Agricultural		CSR	Krajs	vakia	CSR	Krajs	vakia
Establishments		H e c t a r e s					
Total ¹	Agricultural	4.0	4.4	3.5	4.1	4.5	3.7
	Arable	2.8	3.2	2.2	2.9	3.3	2.4
State farms	Agricultural	5.7	6.1	4.7	6.6	6.9	5.7
	Arable	4.2	4.4	3.7	4.8	5.0	4.4
JZD	Agricultural	6.0	5.8	6.5	5.1	5.0	5.3
	Arable	4.6	4.6	4.5	3.9	3.9	3.7
JHR ²	Agricultural	2.9	3.5	2.3	2.7	3.3	2.3
	Arable	2.2	2.6	1.7	2.0	2.4	1.6

¹The total number of workers includes the MTS workers.

²[Not identified]

The amount of agricultural land shrank during the postwar period. There was a sharp drop in employment; the average amount of land per worker, therefore almost doubled during that period. Considering, however, the amount of agricultural land per permanent worker in our agriculture as a whole (one worker is charged with the cultivation of 4.1 hectares of agricultural land) and also the level of mechanization and intensity of production, we rate very well in comparison with other countries (Table 5) as far as the responsibility of one permanent worker for his amount of agricultural land is concerned.

Table 5

Number of Hectares of Agricultural Land
per Worker in Other Countries

Country	Year	Hectares of Agricultural Land per Worker
CSR	1937	2.2
	1958	4.1
Italy	1930	2.5
	1955	2.9
Austria	1939	2.9
	1951	3.8
Netherlands	1947	3.1
Finland	1950	3.1
Belgium	1947	4.1
Denmark	1940	5.6
	1953	6.2
France	1931	4.6
	1954	6.7
East Germany	1956	2.7
West Germany	1956	2.8

Source: Yearbook (Production) FAO 1953 and 1956.

To evaluate the manpower situation in Czechoslovakia we use data concerning the ratio of agricultural workers to the entire number of workers in the national economy. The ratio of workers in our agriculture amounts to almost one third; compared to some countries with advanced agriculture, our ratio is relatively high (Table 6).

Table 6

Country	Year	Percentage of Persons Engaged in Agriculture in Relation to the Entire Amount of Persons Engaged in the Nation's Economy ¹
Finland	1950	46.0
Italy	1954	39.7
France	1946	36.5

[table continued]

[Table 6 continued]

Czechoslovakia	1955	32.4
Austria	1951	32.2
Norway	1950	25.9
Denmark	1950	25.1
West Germany	1950	23.3
Belgium	1947	12.1

Source: Place of Czechoslovakia in World Economy
(Postavení CSR ve světovém hospodářství),
SNPL, Prague 1957.

¹Author's Note: We have to bear in mind that the data are not fully comparable because of differing methods of classification of persons engaged in agriculture within individual countries, primarily because of inclusion of family members.

Division of Manpower According to Sectors and Territories

To assure adequate manpower for agriculture is a task that cannot be properly evaluated unless we deal with the question of manpower distribution according to sectors and individual territories.

The data shown in Table 7 indicates that during recent years the composition of manpower has undergone significant changes owing to the rapid rate of development of the co-operative system. By 1958 more than half of the workers were engaged in the socialist sector. In spite of the changes, the distribution of manpower does not correspond to the ratio of agricultural land held by individual sectors. This unequal distribution of manpower is manifested in the varied amounts of agricultural or arable land per permanent worker within individual sectors (see Table 7).

Table 7

Division of Manpower According to Sectors
As of 1 February 1958

Establishments	CSR		Czech Krajs		Slovakia	
	Absolute	Per- cent	Absolute	Per- cent	Absolute	Per- cent
State sector	193,396	11.0	141,516	13.9	51,980	7.1
JZD Types III and IV	683,354	39.6	466,735	46.1	216,619	29.6
MTS	51,732	2.9	33,923	3.4	17,809	2.4
JHR	815,739	46.5	370,299	36.6	445,440	60.9
Total agricul- tural estab- lishments	1,744,221	100.0	1,012,373	100.0	731,848	100.0

Source: Statisticka Rocenka MZLH 1957

The private sector enjoys ample manpower reserves, while in the socialist sector the worker is overburdened with agricultural land. This is in spite of the fact that the socialist sector has a higher labor productivity and thus less demand for manpower per 100 hectares of agricultural land.

It is interesting to compare the development of this indicator in its time sequence during the two last periods studied. On state farms the burden of agricultural land resting on permanent manpower increase substantially--precisely from 5.7 to 6.6 hectares of agricultural land; the reason is that the cultivated agricultural land increased by 42,000 hectares while the amount of permanent manpower decreased by 14,000 persons. The situation in the JZD's improved considerably with the progress of collectivization. The number of hectares per permanent worker decreased from 6.9 to 5.1. By adding to the permanent manpower the MTS workers (according to the contribution of their output to the JAD's) the amount of agricultural land will correspond during the respective years to 5.5 and 4.8 hectares. In the private sector, the manpower was also somewhat relieved of the burden of agricultural land, because the JZD's were joined at a faster rate by establishments that had large-sized land.

To evaluate the demand for manpower, we may use the figures of the VUZE-CSAZV [Research Institute for Agricultural Economics, Czechoslovak Academy of Agricultural Sciences]

Prague obtained from selective surveys of 51 and 50 JZD's respectively on the basis of norms for annual labor requirements of the JZD's (Table 8).

Table 8

Agricultural Production and the Degree to Which
It Is Assured by Manpower in the JZD's

Indicator	1953	1954	1955
Number of JZD's studied	51	51	50
Manpower required per 100 hectares of agricultural land	22.9	22.8	22.4
Number of able cooperative members per 100 hectares of agricultural land	16.4	17.5	18.0
Number of workers surveyed per 100 hectares of agricultural land	20.4	20.6	20.7
Production and degree to which it is assured by able cooperative members, percent	71.8	76.7	79.9
Production and degree to which it is assured by workers surveyed, percent	88.9	90.3	92.4

In 1955 the average share per permanent agricultural worker in the JZD's was 6.4 hectares; the share was 5.5 hectares per able worker in the JZD's studied. (The share of able workers in the total manpower was 77.7 percent.) The demand for manpower by the surveyed cooperatives would be covered with 4.4 hectares of agricultural land per able worker.

In order to arrive at an evaluation of the present manpower situation in JZD's on the basis of the figures obtained by the VUZE-CSAZV, we have to consider the following additional facts:

a) During recent years (modest) savings on labor were again realized because of increasing mechanization and application of new technology.

b) The seasonal character of agricultural work requires that a specific part of manpower will always have to be supplied by seasonal workers.

c) The computation of manpower requirements in the surveyed cooperatives was based on the existing production intensity (type of seeding area, condition of cattle, etc.), which was unfavorably influenced in a number of cooperatives precisely by manpower shortages. (Out of the surveyed total there were nine JZD's with more than seven hectares of agricultural land per worker.)

The VUZE-CSAZV figures, supplemented by the above-mentioned facts, lead us to the conclusion that the demand of the cooperative sector for manpower has not yet been fully met, but the actue shortage of past years has been overcome.

The demand for manpower may be evaluated according to an analysis of JZD management prepared by the State Statistical Office.⁷ We shall classify the establishments according to the gross production obtained per hectare of agricultural land.

Table 9

Indicator	Beet Area (in koruny)			Potato Area (in koruny)		
	To 3,900	3,901 -5,250	Over 5,250	To 2,900	2,901 -4,250	Over 4,250
Number of JZD's	72	84	82	119	165	66
Number of hectares of agricultural land per perma- nent worker	6.0	5.0	3.9	7.4	5.6	4.5
Gross agricultural production per permanent worker in koruny	19,093	23,358	24,301	16,558	19,724	21,981
Gross agricultural production per hectare of agri- cultural land, in koruny	3,164	4,668	6,222	2,244	3,250	4,843

Table 9 indicates clearly that there is a connection between the burden of agricultural land per permanent worker and the economic results achieved by individual JZD groups. We are interested primarily in the fact that the group of cooperatives evidencing the highest intensity of agricultural production also achieves the the highest productivity of labor; furthermore, the share of agricultural land per worker in this group of cooperatives averages 3.9 hectares in the

beet area and 4.5 hectares in the potato area. This is a figure that approximately corresponds to the burden of agricultural land per permanent worker in our agriculture as a whole (i.e., 4.1 hectares of agricultural land).

Great differences prevail in the supply of manpower to the individual territories. In Slovakia agriculture is generally supplied with adequate manpower; when the change to collectivization is completed there is reason to believe that part of this manpower will be released to other sectors of the national economy. In the Czech krajs the situation is less favorable (see Table 4). The manpower shortage is particularly acute in the border areas (Table 10).

Table 10

The Burden of Agricultural Land Resting
on the Manpower in Border Areas and
in the Interior Czech Krajs in 1956

Groups of Agricultural Establishments	Czech Krajs		Total
	Border Areas	Inter- ior	
State farms	7.0	4.9	5.5
JZD Types III and IV	7.2	5.3	5.6
Individually managed farms	4.4	3.4	3.5
Total agricultural establishments	6.4	4.0	4.3

Source: Analysis of Census of Workers Permanently Engaged in Agriculture and Auxiliary Workers, as of 1 February 1956, SUS, Statisticka Rocenka, MZLD 1957.

The supply of manpower is also uneven in the lower territorial units of the krajs, okres, and even establishments. For example, in the Ostrava and Gottwaldov Krajs the amount of agricultural land is 3.0 hectares per permanent worker, and 3.9 hectares in Pardubice Kraj, whereas in Pizen Kraj it is 5.3 hectares, in Usti nad Labem Kraj 5.5 hectares, and in Karlovy Vary Kraj the amount of agricultural land is as much as 8.6 hectares per permanent worker. The situation was brought about by the uneven development of the productive forces under capitalism and by the elementary absorption of manpower from agriculture during the postwar period.

With respect to structural changes in manpower, our concern centers around changes in the age grouping of workers,

because their assignment in production depends largely on age. During recent years the age factor of permanent workers has become a very serious problem. The age structure of persons permanently engaged in agriculture does not show any general improvement, in spite of the many measures taken. This is confirmed by a comparison of the age structure of persons permanently engaged in the Czech krajs during 1930, 1947, 1954, and 1958, as presented in Table 11.

Table 11

Age Structure of Persons Permanently Engaged
in Agriculture in Czech Krajs

Age Group	1930	1947	1954	1958
15 - 19	12.5	11.5	5.3	6.4
20 - 39	41.9	36.1	27.4	29.8
40 - 49	17.1	23.4	28.0	25.1
50 - 59	15.5	16.5	25.0	25.3
60 and over	13.0	12.5	14.3	13.4
Total	100.0	100.0	100.0	100.0

Source: Cs. Statistika, Vol 113; Population Census in Czechoslovakia as of 1 December 1930, part II, section 2; Ceskoslovenska statistika, Vol 184; Population Census of 1946 and 1947; Statisticka Rocenka MZHL, 1957.

The comparison table offers evidence that, particularly in the postwar period, the manpower shifted toward the older age groups. The changes in the age structure are furthermore confirmed by the indicators of natural changes among the agricultural population as compared with the industrial and the rest of the population. The birth rate in the postwar period among the agricultural population was lower than among the nonagricultural population. The mortality among the agricultural population in the Czech krajs increased, while it registered a sharp drop in Slovakia. This proves that the prewar living standards were low in Slovakia. On the other hand, the age structure is more favorable now in Slovakia than in the Czech krajs. The vital indices for the agricultural population show a downward trend; this is not the case of the industrial and the rest of the population. The number born for each 100 deceased decreases in the Czech krajs at a faster rate than in Slovakia.

The age problem among permanent agricultural workers is not identical in all sectors. It is most serious in the JZD's and

in the private sector. This will show up in the age structure of cooperative members in the course of collectivization. On 1 February 1958 only 5.3 percent in the age group of 14 to 19 worked in JZD's in Czechoslovakia, while 12.1 percent were in the age group of 60 and over. The situation is more satisfactory on state farms, with 11.6 percent of teenagers and 6.5 percent of persons 60 and over. In the Czech krajs, the age structure is less satisfactory than in Slovakia. On the whole, in Czechoslovakia almost 38 percent of the persons permanently engaged in agriculture are in the age group of 50 and over. The worsening age structure of persons permanently engaged in agriculture is moreover reflected in their average age, which went up again in 1958.

The unsatisfactory age structure of persons permanently engaged in agriculture is a serious problem that highlights the need to meet the increasing demands made on the agriculture. It is evidenced by a comparison between the age structure of permanent manpower in agriculture and the age structure of manpower in the socialist manufacturing and industrial sectors, where the age grouping is much more satisfactory in the category of production workers as well as in the age limit groups (see Figure 1).

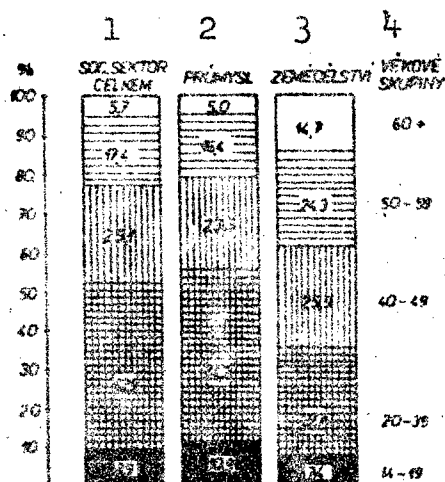


Figure 1. Age Structure of Production Workers in Czechoslovakia.

- 1) Socialist sector totals
- 2) Industry
- 3) Agriculture
- 4) Age groups

Sources: Single Check on the Age Structure of Workers in the Socialist Economy as of 30 April 1955, SUS; Census of Persons Permanently Engaged in Agriculture as of 1 February 1958, SUS.

These are the conclusions drawn from the unsatisfactory age structure:

1. As long as there is no improvement in the age structure, we shall have to count on a lower average agricultural manpower output; this will influence the over-all demand for agricultural manpower.

2. We have to assume a rapid natural decrease in agricultural manpower (13.2 percent of the labor force is over 60).

3. The majority of workers in the advanced age groups cannot be expected to improve their qualifications substantially.

Table 12

Average Age of Persons Permanently Engaged in
Agriculture on 1 February 1956 and 1 February 1958

Groups of Agricultural Establishments	Czechoslovakia		Czech Krajs		Slovakia	
	1956	1958	1956	1958	1956	1958
State farms	38.1	39.1	38.7	39.9	36.6	37.0
JZD Types III and IV	44.0	44.6	44.5	45.0	43.0	43.9
Individually managed farms	44.2	46.6	45.0	46.7	43.3	44.2
MTS's	-	32.6	-	32.6	-	32.6
Total agriculture	43.6*	44.0	44.1*	44.5	42.8*	43.3

*In 1956 excluding the MTS workers.

Sources: Analysis of Census Workers Permanently Engaged in
Agriculture and Auxiliary Workers, as of 1
February 1956, SUS; Statisticka Rocenka MZLH, 1957

A very important agricultural indicator is the structure of manpower according to sex.

The primary occupation of our rural population is in agriculture and the secondary one is in industry, while in highly industrialized areas the primary occupation is in industry and the secondary one in agriculture. This is an important fact in connection with evaluating the sources of agricultural manpower. Women will always make up a substantial part of that source and we have to assume that women will represent better than 50 percent of our agricultural manpower.

Table 13

Development of Participation of Women Permanently Employed
in Agriculture on 10 January 1955 and 1 February 1958

Groups of Agricultural Establishments	Czecho- slovakia		Czech Krajs		Slovakia	
	1955	1958	1955	1958	1955	1958
State farms	39.0	36.8	44.9	42.5	24.7	20.9
JZD Types III and IV	49.1	53.7	55.6	57.4	36.9	45.6
Individually managed farms	59.0	62.0	58.8	62.0	59.2	62.0
MTS's	10.0	11.8	11.2	12.4	10.0	10.5
Total	54.4	54.5	55.4	55.5	52.9	53.1

Sources: Analysis of the Census of Workers Permanently Engaged
in Agriculture and of Auxiliary Workers, As of 15
December 1956, SUS; Statisticka Rocenka MZLH 1958

The women's share in agriculture was 57.4 percent in 1930. If we compare this figure with the data shown in Table 13, we notice that the women's share is now lower and that in effect it does not increase. There are also rather considerable differences between individual krajs and sectors.

In Slovakia women represent more than 50 percent of the labor force, but in the private sector only. Their participation in JZD's and state farms is negligible. The part of women in the total number of workers is somewhat underestimated, especially in Slovakia, because when JZD's are established not all women become cooperative members; they are therefore not added to the permanent labor force, in spite of the fact that the majority of them continue working permanently in agriculture. On the other hand, the small number of women working in Slovakia seems to indicate that there is still an agricultural labor force reserve available.

In accepting the fact that women represent generally more than 50 percent of the permanent labor force at this time and will continue to do so even upon completion of socialization, we shall have to pay close attention to the creation of conditions that will permit their full participation in the labor force. Their limited work participation is the result of their inability to do heavy physical work and of their duties as housewives. The progress in mechanization together with a rise in the qualifications of women and with the spread of

social facilities, such as nurseries, factory kitchens, etc., will gradually equalize the difference in work participation between men and women in the collective economy.

Conclusions Drawn from the Situation and Structure of Manpower

On the basis of the preceding characterization of the situation and structure of manpower, we may draw the following conclusions:

The loss of a considerable number of permanent agricultural workers led to the realization that a manpower reserve was available and that it was created by the capitalist society under the disguise of unemployment in rural areas.

The migration of manpower away from agriculture had an elementary force and its trend was influenced by conditions that arose outside of agriculture. Agriculture was greatly hurt by the loss of manpower. It deepened even further the lack of proportion in the territorial distribution of manpower--an inheritance that was passed on to us by the capitalist society.

The process of collectivization also created an unequal distribution of manpower among the respective sectors.

The elementary migration of manpower also damaged the age structure in agriculture.

All these factors together caused a lack of proportion between the demand for and supply of labor in agriculture. The situation was somewhat remedied by measures adopted by the Resolution of the Tenth Congress of the KSC, but it could not be solved completely. It is notorious that the referred to lack of proportion causes great difficulties in our entire agriculture. There is a definite need for a solution of this situation, which poses a major task.

If we compare today's ratio between manpower and agricultural land in our agriculture as a whole with the need for manpower as listed by the data in Tables 8 and 9; if we consider the trend toward a decrease in the use of manpower in agriculture; and if we take the fact that agriculture employs a comparatively high percentage of the nation's entire

labor force, we arrive at the conclusion that the persisting disproportion need not--and at this time cannot--be solved by any absolute increase in the size of the labor force for agriculture.

The disproportion between the demand for and supply of manpower at the present time is therefore rooted not in a general manpower shortage in agriculture but rather in its unsatisfactory distribution and structure. To assure an adequate manpower supply to agriculture we shall have to solve first the following tasks:

- 1) eliminate the unequal distribution of manpower according to sectors;
- 2) improve the territorial distribution of manpower;
- 3) improve the age structure of agricultural workers;
- 4) create economic and social conditions for the full participation of women in the agricultural labor force.

The unequal distribution of manpower among sectors will be solved by socialization. The private sector represents a considerable source of disguised manpower. If we evaluate the entire agricultural labor force in relation to the agricultural land (4.1 hectares of agricultural land per permanent worker) from the point of view of socialist large-scale production, we arrive at the conclusion that such a labor force is adequate. We must, however, prevent the migration of manpower from agriculture during the process of collectivization.

A rather serious problem is posed by the unequal territorial placement of workers. As a result, some areas and establishments suffer from an acute shortage while others show an oversupply of manpower. The border areas require priority in the solution of this problem. The shortage of manpower is felt there most and there are practically no local sources of labor supply. The only possible solution is the transfer of manpower, although such a measure is both costly and difficult. Experience has taught us that such action cannot be completed on short notice. The only correct method is therefore the gradual complex settlement of the border areas; as a first step, we shall settle those areas that offer the most favorable natural conditions for successful agricultural development. Even though we are unable to assure adequate manpower within a short time for all border areas, there is no reason why we could not find other ways to solve the disproportion between the demand and supply of labor. We refer to labor-saving devices--not curtailing the intensity

of production. The answer is the supply of machinery to these areas. The question of the purpose of production is of major significance. We have learned from experience that areas suffering from a shortage of manpower will benefit from a production purpose (depending on the type of area for seeding) that corresponds to the actual manpower situation and will produce more per hectare than with a production purpose that is directed toward intensification of production but no guarantee of an adequate labor supply. The latter case results in decreased production intensity (judging from the result indicators) and in a waste of equipment; the end result is high costs and a less fertile land.

In the interior of the country the shortage of manpower is prevalent in highly developed industrial areas. We approach the solution of this problem by first making use of the local manpower sources and only in emergencies considering the transfer of labor from other sectors. Some areas with a labor surplus offer the solution of a transfer of labor into other sectors. An action of this nature calls for a very careful approach. In most of these cases the age structure is considerably advanced. The transfer to other sectors is centered on young or middle-aged workers. Their transfer to other sectors would adversely affect the age structure and the entire reproduction process of manpower within the given area or establishment. The advanced age structure leads us to assume that the decrease in the labor force will proceed rapidly in the near future. Under this light, the surplus of manpower appears in many cases to be of a temporary nature; the utilization of manpower may be solved by intensified production. There is another possible solution: that of examining the possibility of a planned transfer of agricultural population from surplus areas to areas with acute agricultural labor shortages.

The process of manpower reproduction in agriculture has been hampered throughout recent years by its age structure. The matter therefore merits our close attention. An improvement of the unequal age structure may be achieved by gaining an adequate amount of young manpower and also by supplementing the 20- to 40-year age group. Such measures would correspond to the sources that are available in agriculture at the present time.

The recruitment of youth into agriculture has not brought encouraging results. In 1958 only 37,500 young workers joined the agricultural labor force, while the plan called for 44,000. In addition to that, there is the still wide-

spread practice of leaving agriculture. We have learned by experience that the problem of gaining a sufficient amount of young manpower for agriculture cannot be solved by an administrative method. It is not only the question of gaining young people for agriculture but also of keeping them permanently there. That requires the creation of basic economic and cultural conditions in rural areas. It involves a number of important factors and is far from being only a question of the amount of personal income earned in agriculture, even though we must admit that this factor is of vital importance.

We shall point briefly to some of the major problems. The falling birth rate among the agricultural population during the postwar period makes it imperative to fill part of the demand for young manpower with youth from towns. School education will play an important role in this direction. The school reform has already provided for acquainting students with agricultural production directly on the farms.

Technical equipment made available to facilitate agricultural work is another answer to the problem of gaining an adequate number of young workers. Better technical methods will increase the demand for qualified agricultural cadres. Agricultural workers in administrative offices and establishments are still often not aware of the fact that it is useless to try to hire unskilled youths to work in agriculture. The school term will therefore have compulsory education in agriculture. The establishments administering basic agricultural training will also have to take their mission more seriously.

The seasonal character of agricultural work presents a serious drawback to all efforts to gain young manpower for agriculture. The seasonal character results in unequal distribution of the work load and lack of uniform income throughout the year. No acceptable solution has yet been found to reduce the seasonal character of the work.

A gradual solution will also have to be found for the social security of JZD workers.

The unsatisfactory age structure may also be relieved by winning middle-aged workers for agriculture. That would contribute to a balanced manpower reproduction process in agriculture. The wives of nonagricultural workers residing in rural areas are an important source of such manpower. Certain basic conditions must be created in order to make

room for women in socialist agricultural production. They include making work for women easier, rapidly mechanizing animal production and so-called "women's work" in vegetable production, eliminating the remains of unequal treatment of women in the payment of wages, and introducing a variety of social facilities, such as nurseries, kindergartens, common kitchens in the places of work, etc.

The process of manpower reproduction is a long-range proposition and requires the solution of work problems existing today as well as in the near and distant future.

The completion of collectivization and the anticipated development of the agricultural production potential will promote a growth of labor productivity and of intensified production and will result in a drop in the demand for agricultural labor. The labor-saving measures have been progressing at a slow pace, but we assume that in the years to come the gradual consolidation of large-scale socialist production will rapidly reduce the demand of agriculture for manpower. We also have to count on a rapid loss of manpower on account of the advanced age structure; such losses will probably be higher than the saving on manpower. Therefore agriculture will not in general constitute a manpower source for any other sector in the near future; even during the coming period it will be necessary to solve the persistent problem of meeting the demand of agriculture for labor.

We refer to our preceding statement that the manpower problem will have to be approached by different methods in different areas according to local conditions. Securing adequate manpower is primarily the responsibility of the respective establishments (JZD's). Workers in the leading posts of agricultural establishments have not yet fully understood this fact.

The correct solution of this matter rests on a manpower budget to be prepared for several years in advance. All JZD's must be advised to work a labor plan into their future program for the Third Five-Year Plan. The program will include both the anticipated demand for labor and the sources from which to fill the demand. The labor plan must incorporate a program for better qualification of the cadres. The plan will call for measures to assure stability of manpower, especially of youth. The master labor plan must be realized in partial annual plans, with due consideration to the lack of uniform labor demand during the year and to individual

seasonal plans. The preparation of the plan will center on discovering and utilizing reserves from within the establishments.

The new labor force will have to be evaluated in accordance with the demand for labor as well as in accordance with the long-range requirements for manpower reproduction in specific establishments.

The sources of manpower are:

1. Continuous supplementing of agriculture by young workers from schools. The establishments have the responsibility of enrolling and of offering additional trade and political education.

2. Utilization of local manpower reserves. This is the source (predominantly women) that should supply additional permanent as well as seasonal workers.

3. Transfer of manpower from other sectors. We refer to workers residing in rural areas and often owning a small parcel of land. We shall resort to this source in exceptional cases only: to supply labor to areas where it has proved impossible to secure labor from the preceding sources or to send a well-qualified and politically reliable worker to boost a JZD.

An objective evaluation of the employment situation in our agriculture would help in deciding on the time and skill elements required for labor to produce agricultural work. This concept would lead to a better evaluation of changes in the productivity of agricultural labor, the degree of savings realized on labor, and the impact of mechanization on these savings. The gradual introduction of time-keeping records would give us more accurate statistical information on agricultural manpower, would enable us to count the persons not fully employed (auxiliary and brigade workers), and would also offer us a clear idea on how best to use the manpower in agriculture. We would thus have all we need to prepare an accurate budget for manpower requirements.

Resume

The employment situation in Czechoslovak agriculture and the reasons for its ups and downs call for a consistent observation. The situation merits our closest attention, since the fact that the employment drop in the permanent agricultural labor force was quite sharp in the postwar years and that statistics on manpower and on actual time worked have unfortunately not yet reached a level that would permit control of all these changes.

We have no reliable data on hand as yet according to which we could evaluate the drop in permanent agricultural workers and its ratio to the changes in the time and skill elements required to produce the principal agricultural products--in other words, the manpower required for a specific volume of agricultural production. Our analysis therefore had to be based on the relation between manpower and production, between manpower and agricultural land, on the changes caused by mechanizing and electrifying agricultural work, etc.

In keeping track of the employment situation in agriculture, we must not limit ourselves to quantitative changes in the number of workers. The agricultural manpower is plagued by a worsening age structure and, furthermore, cooperative large-scale production and gradual mechanization makes more ambitious demands on the qualifications of manpower.

Our economists, concerned with the grave manpower shortage in Czechoslovak agriculture and the need for increasing the labor force, offer a variety of views, thus confirming that the approach to the problem is of a merely relative value. A comparison of indicators on manpower supply to agriculture, a comparison of persons engaged in agriculture in relation to the total amount of the gainfully employed population in the Czechoslovak national economy, and such comparisons made with other countries with approximately the same conditions, will not result in the conclusion that there is an absolute shortage of manpower in our agriculture. The shortage arises mostly from the territorial distribution of manpower, and this applies to some parts of the Czech border areas as well as to the demand for labor that varies from one sector to another.

An evaluation of information secured by the surveys of the SUS has to take into account the fact that, although the prewar data are in general formally comparable, they actually

differ widely regarding the occupation of workers. We have reason to believe that the surveys made in recent years of persons permanently employed in agriculture reflect more accurately their agricultural occupation. Since we are using the data of 1930 because we have no other prewar data to go by, this will of course interfere with [finding] the actual rate of decline among permanent agricultural manpower. One thing that is sure and can be proved is that several permanent agricultural workers are, at the time a cooperative is founded, not classified among permanent workers in the JZD (this concerns mostly women) although they continue working there in agriculture; this is a fact that makes the rate of decline of the permanent labor force in Czechoslovak agriculture proceed actually somewhat more slowly.

A more detailed study of the employment situation in agriculture requires that additional methods be used in agricultural statistics to permit the classification of agricultural manpower according to its share in production or the introduction of estimates on the time and skill elements required to produce the principal agricultural products.

Footnotes

¹The definition of persons permanently engaged in the state and public sectors is based on their permanent labor relation. In JZD's all persons who are members of the cooperative and their family members, who have worked a set minimum of work units and who work either exclusively or primarily for the JZD, are considered permanently employed. In the private sector, persons who are 18 years of age or older and members of their families 14 years of age and older, who work either exclusively or primarily in agriculture, are considered permanently employed.

²This is a force of approximately 37,000 workers employed in forestry exclusively.

³L. Stejskal: K dnesni bilanci pracovnich sil v zemedelstvi, Statisticky zpravodaj, 1946.

⁴See: "Analysis of the Census of Workers Permanently Engaged in Agriculture and of Auxiliary Workers, As of 1 February 1956," according to information of the Ministry of Manpower, SUS.

⁵Report M (Vykas M) Recruitment 2-04. (Nabor 2-04), the Ministry of Manpower lists in this report 96,534 persons gained by recruitment; we cannot use this figure for the computation of the actual increase, because owing to the methodological shortcomings, this figure also includes those persons who were previously listed among persons permanently engaged in agriculture.

⁶See: Program for the 1960 World Census of Agriculture, FAO, Rome, 1957.

⁷Results of JZD Management in 1947 (prepared according to annual reports of the Czech krajs).

CZECHOSLOVAKIA

Principles for Financing of and Granting Credits to JZD's and Other Cooperative Associations by the Czechoslovak State Bank

[This is a translation of an Official Announcement by the Ministry of the Interior, published in Uredni List, No 93, 16 December 1959, Prague, pages 1035-1042; CSO: 3446-N]

Important measures to promote a stepped-up development of agricultural production, the perfection of its management, and the introduction of a new acquisition system have created conditions for applying in agriculture, as in industry, the superior socialist economic system and for increasing production efficiency. The measures are designed to assist cooperative farmers in understanding the working of socialist economic laws and using them purposefully to develop productive forces and strengthen socialist production relations.

The financing of and granting credits to JZD's [United Agricultural Cooperatives], as well as other measures regulating agriculture, are to support the development of socialist production relations and productive forces; for the individual production sectors they represent a powerful instrument for the development of large-scale agricultural production, of investment constructions, and of techniques and for strengthening collective management; they can also enable the cooperatives to create resources of their own.

The JZD's build and organize their collective management according to their own by-laws and in conformity with the state plan for the development of the national economy. They incorporate the tasks for the development of production in the agricultural cooperatives into future five-year plans; they also prepared detailed annual production and financial plans.

The cooperatives use their own material and financial assets for the fulfillment of their production and delivery tasks, for their investment construction, and for raising the living and cultural standards of their members. The cooperatives therefore create basic reserve funds for sowing

and planting as well as fodder funds; they renew them annually according to actual requirements; they allot to the indivisible fund, out of their own financial revenues, the amount required for the renewal and accumulation of basic assets; they subsidize the social, cultural, and operating reserve funds. They build their basic means and installations for collective management predominantly through mutual cooperation of their own members, with material gained from local resources and with their own transportation facilities.

Cooperatives that have not yet had an opportunity to accumulate their own adequate liquid assets are aided by the Czechoslovak State Bank. The credit they receive from the bank is intended to help the cooperatives to build and rapidly develop an intense, highly productive, and well organized collective large-scale production; to raise labor productivity, lower overhead, and thus assure a consistent rise in the standard of living among the members of the cooperative. The Czechoslovak State Bank grants short-term credits to cooperatives particularly during the first half of the year; this is used to meet current operating expenses and other seasonal expenses.

The credit facilities are primarily available to newly founded and economically not yet consolidated cooperatives, especially to those in border areas and mountainous sectors and to those that are setting an example in fulfilling and surpassing production and delivery tasks.

The Czechoslovak State Bank also grants credits to collective cooperative enterprises of JZD's.

The organs of the Czechoslovak State Bank are assisted by the organs of the national committees in granting credits and in effecting their economic controls. They prevail upon JZD's, their collective cooperative enterprises, and other cooperative associations to create maximum resources of their own, to use their financial revenues efficiently according to their by-laws and in conformity with their annual production and financial plans, and to deposit unused monies to their account with the Czechoslovak State Bank. The organs of the Czechoslovak State Bank assist cooperatives and cooperative associations in their planning, in their control of plan fulfillment, and in their current and complex analyses of management. They bring shortcomings to the attention of the cooperative (cooperative association) organs; serious shortcomings are also reported to the executive organs of the

appropriate local and district national committees, which endeavor to eliminate all shortcomings.

In accordance with Article 25 of the by-laws of the Czechoslovak State Bank, the General Director of the Bank issues the following rules governing the financing of and granting of credits to JZD's and other cooperative associations for the information of the JZD's and the national committees; they constitute binding instructions for the branch offices of the Czechoslovak State Bank:

Section I

Accumulation and Use of JZD Financial Means

1. JZD's (hereinafter referred to as "cooperatives") deposit their free financial means with the Czechoslovak State Bank (hereinafter referred to as "the bank").

2. At the instance of a cooperative, the bank opens:

Open accounts
Investment accounts

in its name for the accumulation of its financial means, for its payment transactions, cash withdrawals, and for financing its operations as well as its investment constructions.

The bank may open other accounts in the name of a cooperative; this will depend upon actual needs.

3. An open account is used by a cooperative to accumulate:

- a) financial revenues from current operations;
- b) financial means for sowing and planting funds as well as for the fodder fund;
- c) financial means for the social and cultural fund;
- d) financial means for the operating reserve fund;
- e) other financial means for operating purposes.

The means for social, cultural, and operating reserve funds may be deposited separately from all other operating means. The means for the social and cultural fund intended for the construction of collective social and cultural facilities, as

well as the means of the operating reserve fund intended for financing investment constructions, are always deposited to the investment account.

4. The investment account is used by the cooperative to accumulate:

a) sums allotted for the indivisible fund out of cash revenues; allotments of means for the indivisible fund called for by a drop in the value of livestock;

b) amounts to amortize basic means;

c) indemnities paid by the State Insurance Enterprise for damage caused to basic means and to young livestock; if the cooperative compensates for the damage caused to its livestock by raising its own livestock, the corresponding indemnity paid by the insurance enterprise will appear on the open account of the cooperative;

d) amounts received from sales of basic means and of materials made with investment means, provided they are not earmarked for the repayment of credits;

e) benefits realized from exchanged of basic livestock, draft animals, and young cattle for breeding;

f) investment subsidies and monetary gifts for the development of basic cooperative means and for the purchase of cattle for breeding, provided they are not earmarked for the repayment of credits;

g) interest from deposits in the investment account;

h) other financial means intended to finance investments and general repairs to basic means.

5. Means intended for cooperative housing construction are deposited according to special regulations.

6. Cooperatives make monthly deposits of sums allotted to the indivisible fund (according to actual revenues) and of sums to amortize basic means; the deposits must be made not later than at the end of the following month. If this is not done, the bank confers with the cooperative to supplement the balance of the account as necessary and within the agreed time. In agreement with the bank, the cooperative may, particularly during the first half of the year, deposit sums allotted for the indivisible fund and the sums to smortize basic means in other than monthly instalments.

7. The bank systematically supervises the cooperatives' practice of depositing their free financial means and the sums to amortize their basic means to their accounts with the bank;

the bank furthermore sees to it that the cooperatives use the financial means in accordance with the by-laws.

8. The bank makes payments from the account of the cooperatives up to the credit balance remaining in the account; it does so, as a matter of principle, only on the strength of written orders issued by the cooperatives.

The bank is authorized to debit the cooperative's account without its specific order to settle credits due and also credits prior to becoming due, to collect interest, bank expenses, charges, etc.; the bank can do so in all other instances as provided by law or by agreement with the cooperative.

9. The cooperatives draw against their open account to pay their taxes, dues, fees, and insurance premiums; to make payments on notes which they are paying off out of operating means; to pay interest; to buy supplies for their operation; to cover their production and administrative expenditures; to pay for current repairs to machinery, installation, tools, and premises; and for other needs connected with standard operations. The cooperatives also draw against their open account to establish or to supplement their collective cooperative funds; to pay rewards to their members; and for other expenditures authorized by the by-laws.

The open account is used by the cooperatives to make payments for operating expenses arising from their participation in joint economic activities with other cooperatives.

10. Cooperatives draw against their investment account to pay for general repairs to their basic facilities; for purchase of machinery and equipment; for building and specific agricultural investments; to acquire basic livestock, draft animals, and young breeding cattle and to pay for other investment expenditures. The cooperatives use their investment account to make installment payments on investment credits and on long-term credits made for the purchase of basic livestock, draft animal, and young breeding cattle.

Out of their investment account the cooperatives finance their investment and long-term expenditures arising from their participation in joint economic activities with other cooperatives; they pay membership dues for the construction of and general repairs to improvement projects built on their behalf by improvement cooperatives, and they pay their membership shares to collective cooperative enterprises of JZD's and to improvement cooperatives.

11. Cooperatives that either do not have long-term credits or that are paying off their long-term credits regularly may request the bank to pay out of their investment account amounts for general repairs and for the purchase of badly needed investment facilities intended directly for production and for acquisition of basic livestock, draft animals, and breeding cattle.

Cooperatives that have taken out long-term credits but do not pay on time or are poorly managed may draw against their investment account only with the approval of the Agricultural Department of the Council of the Okres National Committee and in agreement with the bank.

12. If a cooperative does not have adequate means of its own to finance all of its planned long-term requirements, it will make provisions in its annual production and financial plan for the use of its own long-term means, as follows: in the first place the cooperative will assure the time payments becoming due on long-term investment credits and time payments on credits made to purchase basic livestock, draft animals, and young breeding cattle. The balance of the cooperative's own long-term needs planned in accordance with the plan for investment and for long-term cooperative requirements approved for the okres.

13. If the cooperative does not use its investment account to finance its investments and general repairs to basic facilities or to pay for the purchase of basic livestock, draft animals, and young breeding cattle, it may use its account as follows:

a) To pay for urgent operating expenditures, to be effected in agreement with the bank: to purchase fodder, seeds, manure, etc. according to the decision of the cooperative's management. The agreement will state the time limits for the repayment of the utilized amounts to the investment account; they must be repaid on or before 30 November of the current year.

b) To make extraordinary instalment payments on credits that are being repaid from the investment account.

Section II

Financing of Investment Construction and Livestock Purchase

14. The cooperatives as a rule build their collective facilities on a mutual aid basis, in accordance with both the plan of the okres for the investment construction of cooperatives and with their own plans. Investment construction is effected on a mutual aid basis when the construction and assembly operations are carried out by single members or by collective construction groups of the cooperatives or with the help of other citizens, including the case of a construction that is not entirely the result of the work of cooperative members.

15. Construction on a mutual aid basis is financed according to the type of expenditure and up to the amount based on the approved budget estimate after deduction of all possible savings to be realized by the cooperative's own materials and local resources, own transportation facilities, and labor contributed by the largest number of members.

16. Individual expenditures and supplies delivered and invoiced, if intended exclusively for the construction and assembly work done on a mutual aid basis, will be paid by the bank on the strength of a payment voucher and a statement of expenditures checked and verified by organs promoting the development of cooperatives. The statement of expenditures comprises itemized lists of work done by members; the wages due to nonmembers are evaluated according to output norms in effect for the construction industry.

17. [Payment for] construction on a mutual aid basis will be settled by the cooperative upon completion.

18. In exceptional cases where conditions do not permit the construction to be effected on a mutual aid basis, it may be carried out according to the supply system. The construction is effected according to the supply system when it is contracted for with a supplier-construction organization that uses its own production facilities and materials for which it pays with its own funds.

19. The bank pays to the supplier-construction organization for all work done on the strength of a payment voucher. In case of construction and assembly projects, the payment

voucher must be accompanied, according to regulations, by a copy of a record evidencing the acceptance of the project (without such enclosure, "the list of work done") signed by both the representatives of the cooperative and the supplier-construction organization. The bank will require from the cooperative and supplier-construction organization a list with the names and specimens of signatures of the persons authorized by them to deliver and accept officially all construction work. The cooperative may seek assistance from the agricultural department at the council of the national committee of the okres if the cooperative has no specialists who could control and supervise the work and its quality, in connection with the approved project and compulsory budget, and accept the completed work.

Special provisions apply to the delivery and acceptance procedures of completed work, to the invoicing method, and to payment terms.

20. The financing of machinery and equipment supplies is effected up to the investment amounts allotted to the cooperatives by the Agricultural Department of the Council of the Okres National Committee in conjunction with the master plan of the okres and of the individual cooperatives for the gradual mechanization of cooperatives.

21. The financing of the purchase of livestock, draft animals, and young breeding cattle is carried out in conjunction with the plans of individual cooperatives for supplementing and improving cattle raising.

22. Payments of invoices presented by suppliers are effected by the bank out of the cooperatives' own long-term means or by credits granted to them and charged to their account.

The bank pays in cash only for:

a) Wages of nonmembers employed temporarily by the cooperative according to the by-laws; expert construction and special agricultural investment work done on a mutual aid basis. The cash withdrawal order made by the cooperative must be accompanied by a specification of wages itemizing deductions for hospitalization insurance and income tax on wages.

b) What is due to members for construction work done on a mutual aid basis, provided such payments are authorized.

c) Compensation for livestock (except livestock for fattening) turned over by a member of the cooperative in excess of the number specified by the by-laws.

d) Other outlays authorized by provisions in force.

23. The bank effects its price control over investment work and supplies on a random basis by a method and to the extent prescribed by special provisions.

Section III

Granting Credits to JZD's

The Principles Governing Credit Procedure

24. Credits are granted by the bank to cooperatives on the strength of credit contracts stipulated in writing with each cooperative separately.

25. Credits are granted by the bank to cooperatives to cover planned requirements of their collective management which cannot be fully met by the cooperatives' own financial means. Credits are granted only until such time as the cooperative is able to earn its own financial means to pay for said requirements. Credits may therefore be made available to provide only part of the financial means needed for current operations or for investment construction.

26. The granting of credits to cooperatives is based on the five-year and on the annual plans of the cooperatives approved by the Council of the Okres National Committee and complying with the state master plan assigned to the okres. The credit has to be used as a powerful instrument to promote the plan for long-term development of cooperatives and to step up the development of agricultural production; special emphasis is placed on the use of the cooperatives' own resources, on increasing the cooperatives' own financial means and on making the income of cooperative members grow--the same as the income of workers in industry--in proportion to an increasing production and a better economy.

27. The granting of credits to cooperatives will therefore be guided by the following principles:

a) The cooperatives must strengthen their sowing and planting funds and their fodder fund; they must correctly subsidize their indivisible social, cultural, and operational reserve funds. To finance their operation and investment construction, they must in the first place utilize their own financial and material resources and the work of their members for mutual aid projects.

b) There will be a differentiation in granting credits to cooperatives, according to the scope of production, and the condition and potential of the individual cooperatives. It will be done in accordance with the economically correct application of the new agricultural tax and the various forms of state aid. Favorable consideration will be given to a credit application for the purpose of increasing further and beyond the plan both economy and production--as well as for the purpose of developing and consolidating an economically weak cooperative to help it to create a sound economic basis within a specified time.

c) Credit facilities are designed to aid primarily newly established and economically weak cooperatives, particularly in border areas and mountainous sectors; these cooperatives are eligible for extended repayment terms on credits made for long-term investment purposes, for postponements and reductions in their instalment payments on long-term credits, for a negotiation of new instalment terms and other preferential credit treatment. The credit policy aims toward rapid consolidation of these cooperatives and the development of their own means.

d) Economically sound cooperatives will be required to repay their credits faster, to plan and to contribute their subsidies to the indivisible fund on time (which assures an enlarged reproduction of basic means) as well as to the other funds. Thus the cooperatives create favorable conditions for financing their production and their investment construction out of their own means.

e) actual credit terms stipulated by credit contracts shall promote economy in spending material and financial means intended for cooperative production and investment construction; they shall implement compliance with the by-laws, the maintenance of order in bookkeeping, a careful cost analysis of each halter spent for each koruna worth of production and encourage comparison with other cooperatives.

f) When credits are granted, arrangements will be made with the cooperative and, if necessary, also with the representative of the Local (mestni) National Committee of the Okres National Committee concurring. The purpose of this arrangement is to find suitable ways to develop the economic foundations of the cooperative and to render its production more economical.

Terms for Granting Credits

28. The bank grants credits to cooperatives, provided the following conditions are met:

a) A cooperative applying for credit to cover its operating requirements, its investment construction, or other long-term needs must have such requirements listed in its annual production and financial cooperative plan, which must have been discussed and approved by the meeting of members and authorized by the Council of the Okres National Committee.

b) Previous credits must be repaid and new credit applications assured.

c) The cooperative must have duly paid all credits that have become due and all instalments on previously granted credits.

d) The cooperative must supplement the indivisible fund according to the by-laws and comply otherwise with the terms of the by-laws.

e) The cooperative must have a reliable bookkeeping system.

f) The cooperative must insure its property against damage.

29. A cooperative that has not repaid credits that have become due or has not made its instalment payments on previously granted credits may be eligible in exceptional cases for an additional loan by the bank, provided the cooperative takes the necessary steps to improve its operation and meets all other conditions for granting credit.

30. A cooperative that does not subsidize its indivisible fund, that does not operate in accordance with its by-laws, or does not have a reliable bookkeeping system may be eligible

in exceptional cases for an additional loan by the bank, provided the cooperative takes steps to assure compliance with said obligations within a reasonable time agreed upon between the bank and cooperative.

31. The bank and the cooperative may agree in their contract on specific credit terms, based on general conditions, according to the principles listed in Article 27.

32. The interest rates due on cooperative loans and on invoices are regulated by special provisions.

Types and Purposes of Loans

33. The bank grants to cooperatives the following types of credits:

- a) short-term operating credits
- b) short-term investment credits
- c) long-term investment credits
- d) other long-term credits

34. All the credit types are granted by the bank to the cooperatives for the purpose of covering their expenses arising from their own economic activities and from their participation with other cooperatives in a collective economic activity.

Short-Term Operating Credits

35. Short-term operating credits are granted by the bank to cooperatives for the purpose of covering their various operating requirements, utility bills, bills for labor and services, and other operating expenses connected with their principal activities: vegetable and animal production, allied and auxiliary operations, maintenance and repair, provided they are comprised in the cooperative's annual production and financial plan and listed there as expenditures for production.

No short-term credits are granted for the purpose of paying rewards or advances on rewards to cooperative members.

36. The bank may grant a short-term credit to the cooperative on invoices received for planned operating requirements for which the cooperative paid with its own means but which it still has, because they are either used for production purposes, maintenance, or repairs or, although already used up, do not yield any revenue as yet (manure used). The proceeds of this type of credit will be debited to the cooperative's open account. If the cooperative does not repay the operating credit on time, the credit proceeds will be applied to settle directly the payment of the unpaid loan.

Short-Term Investment Credits

37. Short-term investment credits are granted by the bank to cooperatives to help them solve their financial problems before they are able to create their own resources to pay for:

- a) all types of investment expenditures and the purchase of basic livestock, draft animals, and young cattle for breeding;
- b) membership dues for the construction of and general repairs to improvement projects built on their behalf by improvement cooperatives;
- c) general repairs to basic facilities;
- d) membership shares in collective cooperative enterprises and in improvement cooperatives;
- e) other investment expenditures.

Long-Term Investment Credits

38. Long-term investment credits are granted by the bank to cooperatives for the purpose of investing in collective cooperative activities: raising buildings for the collective breeding of livestock, collective cultivation of soil, acquiring facilities promoting mechanization and new technology, and increasing the productivity of collective work.

A. Credits for Constructions and Special
Agricultural Investments

39. Credits are granted for constructions and for special agricultural investments to help build new and remodel existing units. Credits for new buildings are granted by the bank only if they conform with the provisions of the Ministry of Agriculture.

40. The bank grants long-term investment credits to assist cooperatives in their efforts to step up the land improvement and soil fertilization program enabling them to pay their share toward improvement and other soil investment projects effected on their behalf by improvement cooperatives, provided the cooperatives cannot cover the respective costs by contributing the labor of their own members or material supplied from local sources.

41. The bank grants credits to cooperatives for the purpose of building and growing long-range hop, vine, and fruit plantations; opening fish ponds; setting up collective facilities after economical and technical soil preparation; and planting forests, provided the cost is not covered by the state budget according to Government Decree No 47/1955 Sb, Paragraph 13, on measures promoting economical and technical land cultivation. The cost of growing agricultural plantations also comprises the purchase of seeds and plants for the plantations.

42. Credit is as a rule not granted for rewarding construction work done on a mutual aid basis. In exceptional cases, the bank, with the recommendation of the Agricultural Department of the Okres National Committee, may grant to the cooperative credits for the purpose of paying wages to outside workers; such wages must not exceed the rates corresponding to the output norms in effect for the construction industry. The bank, on the recommendation of the Agricultural Department of the Council of the Okres National Committee, may grant credit to the cooperative for the purpose of paying rewards to cooperative members for work done on typified new construction or on other major investments; the reward must not exceed 60 percent of the member's labor value computed according to output norms in effect for the construction industry.

43. Investment construction credits for collective cooperative operations also comprise credits granted by the bank for the cost of construction material, either produced by the cooperative or obtained from local sources, to the extent that is proportionate to the requirement of the construction. The construction must have been included in the plan or in the draft of the plan for the coming year and approved by the Agricultural Department of the Council of Okres National Committees. The bank advances the money for construction material on the strength of an itemized list of expenditures submitted by the cooperative at a cost not to exceed the state wholesale prices and with repayment terms agreed upon between the bank and the cooperative.

The bank may grant credits, as an exception from the rule, for material obtained from the demolition of existing units and up to an amount corresponding to 50 percent of the state wholesale price for new material of the same type.

44. The bank, with the approval of the Agricultural Department of the Council of the Okres National Committee, may grant a credit to the cooperative for the purpose of buying existing farm buildings and land from the socialist sector, provided there is no other way of acquiring them. The cooperative's credit application must be accompanied by the respective bill of sale approved by the Agricultural Department of the Council of the Okres National Committee.

A credit application of the cooperative, endorsed by the Agricultural Department of the Council of the Okres National Committee, may be granted by the bank for the purpose of setting up essential apartment units, provided they constitute part of the farm buildings or of units pertaining to farm buildings and are necessary for the operation.

45. The apartment construction for cooperatives is financed and subject to credit facilities in accordance with special provisions.

B. Credits for Machinery and Equipment

46. Cooperatives buy their machinery and equipment, as a rule, with their own means. The bank may grant credits to newly established cooperatives and to cooperatives that for a variety of legitimate reasons have not been capable of

accumulating adequate means of their own. The credits will be used to purchase machinery and transportation facilities, to be supplied by factories according to the provisions of the Ministry of Agriculture; to acquire mechanical equipment from machine and tractor stations or other organizations of the state socialist sector; and to purchase machinery, tools, implements, and equipment for electrification of the cooperative's operating.

47. No credit is granted for the purchase of passenger cars.

Other Long-Term Credits

A. Credit for the Purchase of Basic Livestock, Draft Animals, and Young Cattle for Breeding

48. Credit is granted to cover the cost of purchasing basic livestock, draft animals, and young cattle for breeding, including transportation charges and other incidental expenses. Credit is furthermore granted for the purchase of beehives, fur-bearing animals, egg laying chickens, and other small domestic animals, provided the cooperative is establishing or substantially enlarging its production.

49. Credit for the purchase of animals may be granted provided that all members contributed to the cooperative all their animals except for the number of animals that a member's family may keep for personal use according to the cooperative's by-laws, and provided that collective stables are assured for the animals to be purchased. Credit for exchange of animals is granted only up to the difference between the purchase price for quality animals and the value of discarded animals.

50. The bank may grant credit for the purpose of cash payments for animals that have been brought by members into the collective stables only if the model by-laws of the JZD's permit cash payments without any deduction for the indivisible fund (model by-laws, JZD, Article 4, Paragraph 3).

B. Credits for Basic Expenditures and Land Reclamation

51. Credits for basic expenditures are granted by the bank:

a) For the purchase of seeds, plants, fodder, and manure for which there is a need before the next harvest and which are needed for the cultivation of newly acquired nonmember land. The newly acquired land must either have been assigned to the cooperative by the state or the cooperative must have taken over the land or the entire operation according to Government Decree No 50/1955 Sb on specific provisions assuring agricultural production. The newly acquired land and operation could also have been taken over by the cooperative from the socialist sector, but without adequate supplies of seeds, plants, fodder, and manure.

b) For payment of supplies of seeds, plants, fodder, and manure that the cooperative took over from the socialist sector together with the land or operation.

52. For land reclamation, credit is granted to cover expenditures connected with the cultivation of waste-land or to increase the productiveness of the land, to secure:

- a) the purchase of manure;
- b) the payment of invoices covering the tilling and seeding of land by machine and tractor stations;
- c) the payment of invoices covering work done by enterprises of the socialist sector in connection with irrigation or draining, surface grading, removal of gravel and shrubbery, and fertilizing the land with marl;
- d) the purchase of seeds of grass, clover, and alfalfa, if the reclaimed land is intended for meadow and pasture.

C. Credit for Minor Items

53. Long-term credits are granted by the bank for the purchase of a large inventory of minor agricultural implements to outfit the agricultural cooperative for the first time and to outfit collective installations, provided the purchase of these items is economically unavoidable and necessary.

Granting and Utilization of Credits

54. The bank grants credits to cooperatives on the basis of the approved plan for the cooperative's credit requirements.

55. The credit requirements are discussed between the bank and the individual cooperatives, taking into consideration their natural and economic conditions as well as the necessity and their ability to assure the material and financial part of their planned production and investment construction in order to utilize in the best possible manner total credit amount established for the cooperative by the master plan of the okres.

56. The cooperative incorporates into its annual production and financial plan the amount of the short-term credit that it requires. It also does so regarding the amount of long-term credit established for the cooperative by the Agricultural Department of the Council of the Okres National Committee in agreement with the bank, in connection with the distribution of the credit amount assigned to the okres. Furthermore, the cooperative includes in its annual production and financial plan its own means that it will use for financing. The amounts form the basis on which the credit for the entire year will be negotiated.

57. The cooperative's credit application must be accompanied by the following documents:

- a) credit application prepared on a form printed by the bank;
- b) approved cooperative balance sheets for the preceding year;
- c) abstract of the cooperative's annual production and financial plan established for the current year and certified by the Agricultural Department of the Council of the Okres National Committee [including]:

- [a] copy of the budget listing requirements and cost of operating all facilities in connection with a credit application for operating requirements;
- [b] copy of the budget listing long-term requirements and their application in connection with applications for investment credits and credits for other long-term requirements.

If application is made for credit to cover requirements arising from joint participation with other cooperatives in a collective agricultural activity, the cooperative will submit the itemized cost or other specifications prepared by the respective cooperative association.

The cooperative will attach to its credit application only those documents that it has not submitted to the bank previously.

Credit application must be approved by the meeting of cooperative members and endorsed by the Agricultural Department of the Council of the Okres National Committee.

58. The bank will notify the cooperative in writing of its decision on the credit application with five working days after the application was received by the bank. Within these time limits the bank may ask for additional information.

59. In granting the credit, the bank will notify the cooperation of its credit terms. The cooperative will advise the bank in writing of its acceptance of the credit and the credit terms. This procedure constitutes a written contract between the bank granting the credit and the cooperative accepting the credit and its terms. The contract is the basis for utilizing the credit facilities.

60. If the credit is denied, the bank will state its reasons. In this event the bank notifies the Agricultural Department of the Council of the Okres National Committee.

61. Prior to the approval of the annual production and financial plan, but not later than the end of February, the bank may advance credits requested by the cooperatives on the basis of a provisional plan approved by the cooperative membership meeting and endorsed by a statement of the Agricultural Department of the Council of the Okres National Committee that the investment and other requirements for which credit is requested will be incorporated into the plan.

62. If the cooperative changes its annual production and financial plan as a result of a resolution adopted by its membership meeting, and it thus has to change its credit requirements, it will submit to the bank a new or supplementary credit application accompanied by documents. Changes in long-term credits may be effected only in conjunction with the master plan of the okres.

63. Credits to newly established cooperatives are granted according to the procedures applying to cooperatives operating on a year-round basis. A cooperative established in the middle of the year prepares its production and financial plan for the remainder of the year.

64. Credits that have been granted to cooperatives may be utilized for the stipulated purposes only.

65. In order to obtain release of means from short-term or long-term investment credits and other long-term credits, the cooperative submits to the bank:

a) In case of credits for constructions and special agricultural investments:

- [1] a decision approving the construction (building permit) or a decision changing the use of the land, issued according to the respective provisions;
- [2] an approved budget, prepared according to provisions, regulating the preparation of cooperative project and budget documentations;
- [3] a contract between the cooperative and the construction organization.

b) In case of credits for the purchase of basic livestock, draft animals, and young cattle for breeding:

- [1] a confirmation from the local national committee that the livestock has been assembled and collective stables have been secured;
- [2] a copy of a record listing the number of animals brought by a member into collective stables and a confirmation from the executive organ of the local national committee stating that the animals were raised by a member above the established plan.

c) In case of credits for founding expenditures and for reclamation of land:

- [1] a confirmation of the executive organ of the national committee stating that the land or the entire operation was assigned by the state according to Government Decree No 50/1955 Sb on specific provisions assuring agricultural production or stating that the operation was taken over from the socialist sector without adequate supply of seeds, plants, fodder, and manure;

[2] a confirmation from the Agricultural Department of the Council of the Okres National Committee stating the amount of land being reclaimed.

d) In case of credits for general repairs to buildings and for specific agricultural investments, a simple budget will be submitted. No budget is required for general repairs to machinery and equipment.

e) In case of investment credits and other long-term credits granted to cover requirements arising from joint participation with other cooperatives in a collective agricultural activity, the cooperative will submit an extract of the distribution of dues to be collected for the collective activity or other proof prepared by the appropriate cooperative association.

67. Cooperatives draw against their credits by issuing payment orders, signed in accordance with signature specimens filed with the bank, or by other instruments listed in the provisions regulating payment transactions.

68. Credits for operating requirements will be released without any documents other than payment orders, if not agreed upon otherwise.

69. The bank, as a rule, effects payment on behalf of the cooperative by transferring funds from the cooperative's credit account to the cooperative's suppliers account. The bank pays cash to cooperatives out of the approved credit only when the cooperative uses the money to purchase requirements that are customarily paid for in cash, to pay wages to nonmember workers and rewards to members for construction work for which credit has been granted according to Article 42, and to pay cash to members for their animals. Within 15 days the cooperative will submit its accounting to the bank for the cash drawn against its credit, together with vouchers justifying the use of the cash. Any cash that has not been utilized will be refunded to the bank by the cooperative and applied to its credit account.

70. Short-term operating and short-term investment credits are, as a rule, granted for the requirements of the current year. They may, however, be granted even for the requirements of the coming year, particularly during the second half of the year.

71. Long-term credits, with the exception of credits for construction work and special agricultural investments, are authorized for requirements of the current year. Credits that have not been utilized by the end of the year are forfeited; amounts that have been utilized are transferred by the bank to the loan accounts as of the end of the current year.

72. Long-term credits for construction and special agricultural investments are authorized for the entire construction project. The amount of the authorized credit for the respective year is adjusted according to the ability to achieve savings on construction work done on a mutual aid basis. The savings must be shown in the cooperative's annual production and financial plan for the respective year. The amounts that have been utilized against these credits will be transferred by the bank to the loan accounts at the end of the year during which the construction work or the special agricultural investment was completed.

Payment Terms and Method of Repaying Credits

73. The bank grants credits to cooperatives [to be repaid] on dates specified in the credit contract. The due date for the credit granted is agreed upon between the bank and cooperative separately, according to the conditions and possibilities of individual cooperatives, and within the due date limits established for specific credit types.

74. Credits are granted by the bank to cooperatives under the following terms:

a) Short-term operating credits are to be repaid within twelve months. Credits used for payment of invoices, covering supplies of manure delivered prior to actual use, are extended by the bank for payment within 18 months. Short-term credits granted for operating requirements during the current year must be repaid out of cash receipts of the current year. Short-term credits granted for next year's operating requirements may be repaid by the cooperatives out of next year's cash receipts.

b) Short-term investment credits are to be repaid within twelve months. For these credits the bank arranges repayment terms with the cooperative that as a rule do not extend beyond the current year.

c) Long-term credits are to repaid in instalments according to agreement. The bank negotiates with the cooperatives annual instalment payments:

- [1] on long-term investment credits for construction work and special agricultural investments--usually at the rate of 6 percent of the loan;
- [2] on long-term investment credits for machinery and equipment--usually at the rate of 30 percent in case of credit for the purchase of used machinery and 18 percent in case of credit for the purchase of new machinery and equipment.

The credit contract may stipulate higher or lower annual instalment payments on long-term investment credits, depending on the individual economic conditions and the development potential of each particular cooperative. The instalments should be in amounts that would at least permit repayment of the credit within the anticipated economic life of the investment.

On other long-term credits [the instalments should constitute] at least 15 percent, in case of credits for the purchase of basic livestock, draft animals, and young cattle for breeding; at least 25 percent in case of credits for founding expenditures and for reclamation; and at least 33 percent in case of credits for minor items.

75. The annual instalments on all long-term credits always fall due on 30 November. The first annual instalment falls due not later than the year following the transfer of the utilized credit amount to the loan account. Together with the instalment, the cooperative pays the bank the corresponding interest as well.

76. The cooperative incorporates into its annual production and financial plan all instalments on credits that fall due during the current year as well as the interest stipulated in the credit contract and in accordance with the bank statements.

77. The cooperative will effect an extraordinary instalment payment on the credit out of indemnifications for damages or out of receipts obtained from the sale of production facilities and of material for which credit was granted.

78. The bank notifies the cooperative, not later than 15 days prior to the date on which an instalment or repayment falls due, of the respective amount.

79. Cooperatives use the means deposited in their investment accounts to pay instalments on investment credits and long-term credits for basic livestock, draft animals, and young cattle for breeding. They use the means deposited in their open accounts to repay short-term credits and to make instalment payments on other long-term credits.

80. If the cooperative fails to repay the credit or to make an instalment credit payment on time, the bank is authorized to collect the respective amount on the due date by debiting the cooperative's open or investment account, depending on the type of credit. The bank collects the interest due on the credit by debiting the cooperative's open account.

81. Credits or instalments on credits that have not been paid on time and cannot be collected as provided by Article 80 will be transferred by the bank on due date to the account of operating credits that have not been paid on time and to the account of instalments that have come due on investment credits or other long-term cooperative credits respectively. Interest due that cannot be collected from the open account will be transferred by the bank to the account of operating credits that have not been paid on time.

82. The amounts that have been entered as provided by Article 81 are collected by the bank by means of a transfer from the cooperative's open account or investment account, as the case may be, in the order established by the provisions for payment transactions. A short-term credit that has not been repaid on time may be collected out of the proceeds of the credit that has been granted to the cooperative, according to Article 37 of these Principles. The cooperatives are at liberty to use cash to repay the credit or to make an instalment payment on the credit together with interest due.

83. Operating credits that have not been repaid on time as well as instalments due on investment and other long-term credits are subject to a higher interest rate according to special provisions.

84. If a cooperative, through no fault of its own, is forced to delay the delivery of its planned supplies and as a result is unable to meet its payment on short-term credits or its annual instalments on long-term credits on time, the bank may extend the payment terms. The extension must be requested by the cooperative and endorsed by the Agricultural

Department of the Council of the Okres National Committee. The extension may be granted for the necessary time limits within which the cooperative will be able to secure the means of payment. The extension is granted only in very exceptional and isolated instances and should not extend beyond 12 months from the original date due.

85. At the instance of the cooperative, and with the endorsement of the Agricultural Department of the Council of the Okres National Committee, the bank is authorized to postpone part of an instalment or the entire annual instalment on a long-term credit that is due during the current year. Eligible for such action are cooperatives that would otherwise suffer serious financial setbacks and would be left with revenues (in cash and in kind) that would prevent them from paying equitable rates to their members. Cooperatives file their application [for postponement] on or before 1 October. The condition for granting of the postponement is that the cooperative will make every effort to improve its economic situation. A favorable decision on the cooperative's application will be the basis for the bank to negotiate new payment terms with the cooperative for the postponed instalment or part thereof. Interest payments cannot be postponed either in whole or in part, because it must be paid in full.

Provisions Assuring the Purposeful Use and Repayment of Credits and Sanction for Nonperformance

86. The bank investigates the purpose for which the credit is used, follows the economy and propriety of expenditures in production, in investment activities, and in acquiring equipment and analyzes the economic and financial operations of the cooperatives. The bank is authorized to control the condition and utilization of basic means and equipment and to survey construction work. By granting credits, by taking care of repayments, and by effecting economic controls, the bank assists the cooperatives in their effort to develop production and consolidate economic strength.

The bank is authorized to examine every phase of production, inspect warehouses and individual production premises of the cooperatives, to inquire into the annual production and financial plans and annual balance sheets and to comment on them, to study bookkeeping records and other cooperative files

and demand proof as to how credits were used and how the cooperative is run.

The bank is responsible for reporting any serious shortcomings that it discovers while exercising its control powers to the chairman and auditor of the cooperative, to the executive organ of the local national committee, and to the Agricultural Department of the Council of the Okres National Committee. In its report the bank calls for the elimination of the shortcomings.

87. Cooperatives file statements with the bank within specified time limits and assist the bank representatives in the discharge of their controlling duties, according to the provisions of the preceding article.

88. Cooperatives are liable to penalties for poor management if they are responsible for not fulfilling their annual production and financial plans; if they do not comply with their obligations toward the state; grossly or consistently violate the principles of by-laws; do not live up to the terms of the credit contract; do not use the credit economically or divert the credit toward purposes other than stipulated; do not repay short-term credits and make no instalment payments on long-term credits; do not subsidize the indivisible funds; do not keep their bookkeeping in order, or if there is other evidence of poor management and the shortcomings are not eliminated within specified time limits. The penalties for such conduct are as follows: the bank is authorized to either limit or deny credits or to terminate any further utilization of the credits granted and/or demand full payment of credits prior to coming due. The bank serves a 15-day written advance notice of its intended action to the chairman of the cooperative, the executive of the local national committee, and the Agricultural Department of the Council of the Okres National Committee.

The bank will resume granting credit and/or renounce any further action of collecting the credit prior to its due date when the cooperative eliminates the shortcomings and inadequacies that caused the bank to apply credit penalties.

Section IV

Financing and Granting Credits to Cooperative Associations

89. Cooperatives form associations for the purpose of more efficient economic activities and to achieve a more satisfactory development of their agricultural production.

90. The bank may offer a special open account or even a special investment account to aid lower level cooperative associations which do not constitute an independent juridical person. These accounts are opened at the instance and in the name of a single cooperative--the one authorized by the contract to direct the operation of the cooperative association. This specific cooperative is then authorized to manage the account.

The special open accounts and the special investment accounts opened in the name of a lower level cooperative association are subject to the same interest rates as the open accounts and investment accounts of cooperatives.

91. No credit accounts are opened in the name of lower level cooperative associations. In case of need, the bank may grant credits to individual cooperatives for expenditures arising from their participation with other cooperatives in collective economic activities on a lower cooperative association level.

92. If necessary, the bank opens, in the name of the cooperative association enterprises of JZD's (hereinafter referred to as "enterprise"), sales accounts, investment accounts, and other accounts, like those opened for economic organizations. These accounts serve the purpose of accumulating financial means and of making payment transactions.

93. If the enterprise does not have adequate means of its own to finance its economic activities and investment constructions, the bank may negotiate a credit contract with the enterprise to provide it with the required operating and investment credits. These credits are granted by the bank in accordance with the principles governing the financing and granting of credits to economic organizations by the Czechoslovak State Bank.

Section V

Payment Transactions and Bank Control

94. Special provisions regulate the payment transactions and the bank control of JZD's and cooperative associations.

(Signed) General Director: Dr Pohl

CZECHOSLOVAKIA

Increased and More Economical Production on State Farms

[This is a translation of a speech by Lubomir Strougal, Minister of Agriculture, delivered at a meeting of functionaries of Prague Kraj, published in a supplement to Statni Statky, Vol II, No 11, November 1959, Prague, pages 1-8; CSO: 3593-N]

On 23 September 1959 the Plenary Session of the Central Committee of the Communist Party of Czechoslovakia adopted the basic principles of the Third Five-Year Plan for the expansion of the national economy in 1961-1965.

Agriculture has an important place in the Directives for the Third Five-Year Plan, which contain the decisions taken by the Eleventh Congress of the KSC. The Directives state that it is necessary to base the proportional expansion of the national economy on a substantial increase in agricultural production, strengthen and develop the socialist large-scale agriculture, and organize modern and intensive agricultural enterprises equipped with high-efficiency machinery. It is necessary to improve the cultivation of soil and to apply chemicals more extensively, especially artificial fertilizers. Agricultural production should be increased 21 percent in Czechoslovakia during the Third Five-Year Plan and 28 percent in Slovakia as compared with the 1960 plan, and the same intensity should be attained in Slovakia as in the Czech krajs.

The increased production should cover the growth in the consumption of basic foodstuffs and should to a large extent supply the necessary raw materials for light industry and the food industry.

Agricultural production should be organized so as to approach the level of the most advanced states as far as production intensiveness and labor productivity are concerned. The production cost in agriculture should be reduced as a basis for a further reduction in the retail prices of foodstuffs. It is necessary to ensure a planned growth in agricultural production and simultaneously reduce the work of

men and animals as well as the cost. Self-sufficiency in the production of seeds and fodder and in cattle breeding should be ensured, as well as better utilization of machinery and cheaper construction of new buildings.

These are the tasks of the Czechoslovak socialist agriculture in the Third Five-Year Plan.

The state farms are a very important factor in the development of socialist agriculture. We say that the state farms are a higher form of socialist agriculture enterprises. This is correct from the point of view of the form of ownership of the means of production and the method of remuneration of labor. Of course, this is not enough to place the state farms in the forefront of our socialist agriculture! The leader is the one who knows how to use fully all opportunities offered by socialist large-scale production in order to produce more, better, and more cheaply and contribute more to the whole society.

He who is ahead becomes the leader of others. They try to learn from him and to equal him. This is the law of life and of the development of the whole society.

The decisions of the Eleventh Congress of the KSC entrusted the state farm workers with the honor of being the first in our agriculture and a model and example of socialist large-scale production to the JZD's [Jednotne zemedelske druzstvo; Unified Agricultural Cooperatives].

This is not an easy task. It carries responsibility. It is the more important because the state farms, together with the JZD's, represent the decisive part of the whole agriculture. The socialist sector represents 88.2 percent in Prague Kraj, of which 20 percent are state farms.

The present stage involves two basic tasks: good preparation of the fulfillment of the planned 1960 targets, which means the accomplishment of the autumn work and safeguarding animal husbandry work during the winter period. It also means the effective utilization of new measures in the planning and financing of state farms, and the final preparations for the introduction of the new wage system.

The second task is the application of the Directives of the Third Five-Year Plan so as to enable the state farms to ensure the maximum efficiency in the utilization of all means which the Third Five-Year Plan allocates to them by developing

a spirit of initiative among the workers and utilizing the local production conditions.

Political and Organizational Work as a Basis of Success

The past development of production and management on state farms has shown that, despite certain partial achievements, there has not been any substantial improvement since the adoption of the above decisions. Despite the absolute growth of the gross production, the production intensity per hectare of state farm land has not attained the planned level.

The total volume of gross production in Czechoslovakia was fulfilled 90.5 percent in 1958, and the production per hectare of agricultural land was 3,536 koruny in terms of comparable prices instead of the planned 4,005 koruny. Thus the state farms owe 406 million koruny worth of products to the national economy. Despite the failure to achieve the planned volume of gross production, the state farms exceeded the planned production costs by more than 573 million koruny--i.e., by 11.3 percent.

The reasons which contributed most to this unsatisfactory situation were inadequate political and organizational work, insufficient and wrong utilization of the production means, of the work of the cadres who manage the state farms, and their qualifications. Despite the decisions of the Political Bureau of the UV KSC of November 1957, the state farms have been slow in solving a series of important problems connected with their economic development, such as the type of production, stable rotation plans, the production of an adequate amount of fodder, the introduction of large-scale technology on a broad basis, etc. Leading workers at the state farms condone uneconomical work and do not help to promote the right attitude toward socialist ownership, do not pay enough attention to the engagement of workers in the state farm management or to utilizing their initiative. In many cases the wage policy is rather attractive but wrong, and compensations are not always paid according to the results achieved by individuals or groups.

These and other shortcomings are causing excessive consumption of materials and financial means as well as high production costs.

The results on state farms prove convincingly that good decisions, machinery, or technology are not enough to remove the shortcomings or to ensure a growing production. Of course they are important, but the decisive thing is the zeal of the workers in adopting the decisions as their own, utilizing all measures, techniques, and technology, and uncovering on their own initiative all reserves and shortcomings which form obstacles to the further expansion of production.

At present, when everything is concentrated on the rapid growth of agricultural production and its maximum economy, it is necessary to remove as quickly as possible all past unsatisfactory results on state farms. The state farms should serve as examples of how to reach the decisive turning point in the growth and economy of agricultural production.

The results achieved in some types of production on state farms prove that all necessary conditions are at hand.

The first seven months of 1959 showed some improvement on state farms in the fulfillment of plans as against the same period of 1958, but it is not yet the real change which is expected.

The area of the state farm agricultural land in Czechoslovakia was 4.8 percent higher on 1 August 1959 than on the same date in 1958.

Cattle grew to 112.8 percent, cows to 113.3 percent, swine to 102.7 percent, and sows to 120.1 percent. This shows a favorable development in the number of livestock per hectare of land--especially the growth in the number of cattle, for which the plan was fulfilled by 106.8 percent and in cows, for which the fulfillment was 104.6 percent at the end of 1958. The ratio of cows in the total number of cattle also improved.

On the other hand, the other livestock indices are not as favorable. The output of milk dropped from 6.10 liters per day during the first half of 1958 to 5.57 liters during the first half of 1959--i.e., to 92.1 percent. The corresponding figures for Prague Kraj were 5.1 and 4.45 liters. The daily weight increase in calves and young cattle remained basically at the same level as in the first half of 1958, and the weight increase in the fattening cattle increased from 0.49 kilograms per day in the first half of 1958 to 0.50 kilograms per day in the first half of 1959, but it is lower than

was planned. The corresponding figures for Prague Kraj are 0.38 kilograms against the planned 0.49 kilograms. Better conditions are found only for hogs.

The state farms improved their deliveries of the main livestock products to the central fund during the first half of 1959 as compared with 1958, especially in the meat supply. The supply of slaughter cattle without calves increased to 111.3 percent against the first half of 1958 and 112 percent in Prague Kraj; slaughter hogs to 116.1 percent and 117 percent in Prague Kraj; milk supply to 108.9 percent, and in Prague Kraj it dropped to 96 percent. The supply of eggs increased to 130.3 percent. The plan of the delivery dates was surpassed for the first time during the first half of 1959.

Despite the improvements in the plant as well as livestock production in comparison with the past year, there is no reason to be contented. There are good reasons to believe that the planned number of cattle, cows, swine, and sows will be attained or even surpassed; however, their economic indices will not be attained, which means that the planned volumes in livestock production will not be fulfilled in 1959. The failure to fulfill the plan during the first half of 1959 represented an unplanned loss of over 113 million koruny.

New Technology as a Means of Reducing Costs

The results of fattening hogs are good this year; a number of measures were taken concerning the fattening method which laid the groundwork for the industrialization of pork production. However, it should be stressed that new technology in pork production does not mean merely the introduction of automatic feeding devices. The success of the new technology is based on a sufficient supply of cheap and good fodder produced mainly on the farm's own land. The introduction of automatic devices and other technical and organizational measures is the final stage in the introduction of the technology. Only in this way is it possible to reduce the cost per production unit, especially by reducing the cost of fodder and the amount of the work of men and animals.

At the end of 1959, the state farms fattened about 132,000 hogs by using automatic feeding devices--i.e., roughly 50 percent of all fattened hogs; however, only 26,000--i.e., 10 percent--were in fully automated feeding sties.

The hog-fattening results on the state farms this year demonstrate clearly the possibility of improving production, and they prove the importance of good organizational work. The daily weight increase was 0.33 kilograms last year; this year it is attaining an average of 0.43 kilograms--i.e., an increase of 30 percent. It means that the state farms produced 70,000 quintals more of pork during the first eight months of this year than during the same period of 1958. The consumption of fodder per kilogram of increased live weight dropped from 6 to 5.55 oat units. If the lower 1959 consumption (compared with 1958) is converted to the actual production of pork, it represents a saving of 1,700 freight cars (100 quintals per car) of fodder. The cost per kilogram of increased live weight dropped almost 20 percent, representing a saving of 81,628,842 koruny compared with 1958.

Most of the state farms are in a position to achieve an average daily increase of 0.45 kilograms this year and 0.48 kilograms next year. This will require full-scale automatic feeding of hogs on all state farms by the first half of next year.

The good experiences acquired with the fattening of hogs should also be applied in cattle fattening, where the increase is an average of 0.45 to 0.50 kilograms. There are state farms where the level of the weight increase in cattle is lower than in hogs. Four state farms in Prague Kraj--Cesky Brod, Dablice, Jenec, and Kolin--used, for 1,600 head of cattle, the same fattening measures as for hogs. The cattle were concentrated in several stables, the care was improved, and the regular supply of feeding mixtures ensured; the daily increase rose to 0.82 kilograms during the first test month. The Kolin State Farm achieved a farm average of 0.99 kilograms. New cattle-fattening methods must be introduced on all state farms without delay.

If the above improved weight increase were to be achieved in 60,000 heads of the fattened cattle--i.e., approximately one eighth of all cattle on state farms--the annual increase would represent 8,103 tons. A simultaneous cost reduction of 15 to 20 percent per kilogram of beef would represent at least 152 million koruny in the planned production on state farms in 1960. It is surely worth while for the state farm workers to think about the above figures.

If we study the present work on state farms from the point of view of the future tasks, we will see that there are many serious problems whose solution cannot be postponed for future

years. An expansion of the area of corn and its improved cultivation cannot be solved in the spring before sowing. An adequate number of sucklings for the pork production is decided by their birth in the spring; this means autumn fertilization of the sows. The fertilization of heifers and the increase in the number of cows next year cannot be solved only in March.

There are many such questions. Therefore, we should follow the principle: do not postpone for tomorrow what can be done today.

Participation of All Workers in the Preparation of Plans

Here I would like to bring up a few questions concerning the preparation of the production-financial plan for 1960, which should become the basis for the decisive improvement in production and management. It is the last year of the Second Five-Year Plan, and its results will serve as a basis for the successful start of the Third Five-Year Plan. The planned expansion of agricultural production in 1960 will require exceptional effort; the gross production of state farms is scheduled to increase by 9 percent as compared with the 1959 plan, and the production cost should drop 1.2 percent as against the 1959 plan.

The following are the most important conditions for a successful preparation of the 1960 plan:

The plan is the most important instrument for directing a socialist society. However, the state farms do not apply this instrument correctly and sufficiently. A decision taken by the Political Bureau of the UV KSC in November 1957 determined the principles for decentralized management and planning within state farms by granting more power to the sectional managers. Measures adopted by the June plenary session of the UV KSC make it possible to expand the independent initiative of the production units in the preparation of plans. These measures have to be fully utilized because they are the basis for the development of the initiative of all workers; they should serve as a basis for broad participation of workers in management.

I say this because there are still many leading state farm workers who undervalue the participation of all workers in the preparation of plans. Some are even of the opinion that the level of workers on state farms is too low, that planning requires professional knowledge, and that the workers thus cannot assist in these activities.

Such an opinion is wrong; it only proves that it is necessary to consider new forms of organizing the participation of workers in the preparation of plans.

The first thing is to free the participation of workers in planning and management from any formality. This means that the leading workers on the state farms ought to be convinced themselves that the participation of workers is important, even for them and their management work. Then the participation of workers in the preparation of plans would not touch only on marginal problems or be something that has to be done because it was so ordered by some higher organ, but it will become an inseparable part and a system of state farm management and a necessity for every leading worker.

Participation does not mean calling a meeting, making proposals, and asking for opinions. It does mean searching for new forms of negotiation and helping workers to participate in the preparation of all kinds of matters concerning the plan.

The state farm manager and other leading workers should organize, in close cooperation with the organization of the ROH [Odborové revoluční hnutí; Revolutionary Trade-Union Movement] and the CSM [Svaz československé mládeže; League of Czechoslovak Youth] and, under the auspices of the Party organizations, a broad and active participation of workers in management and all related problems.

The preparation of the draft of the 1960 plan and its actual technical and organizational guarantees should become a test of the political maturity and organizational ability of all leading workers on the state farms.

A number of measures adopted by the Central Committee of our Party create favorable conditions for achieving better production results on state farms; among these measures are the new planning method and the introduction of uniform prices of agricultural produce. One of the most important measures is a change in the method of financing state farm production as adopted by the Political Bureau of the UV KSC and the government.

This improves the present system of financing state farm operations and adjusts the whole system to the economic conditions created by the introduction of uniform compulsory-delivery prices. The adopted measures create an effective economic pressure on the state farms to invest their funds in their operations in order to increase production and lower production costs.

The application of this principle changes the role of the fixed grants; they will not be fixed for the period of several years, but their volume will be gradually reduced during the Third Five-Year Plan. The reduction will be in conformity with the percent of the planned production-cost reduction during the individual years of the Third Five-Year Plan. Thus, the state farm workers will be forced to find ways and means to expand production and make it more economical with regard to the local specific conditions.

The new compulsory-delivery system and the new uniform compulsory-delivery prices, effective for the state farms as of 1 January 1960, will make the state farms more independent and will substantially reduce their dependency on appropriations from the budget.

Measures based on the new compulsory-delivery system affect the principal indices of the 1960 financial plan of the state farms. The higher prices of the products will increase the total earnings for agricultural produce an average of 57 percent as compared with the present system; earnings from plant production will increase by approximately 46 percent and livestock production by approximately 60 percent; this will cause a growth in the total earnings, including industrial products, work, and services, of approximately 48 percent.

The above growths in earnings will vary according to the individual state farms and according to the share of the individual products in the total volume of earnings, but it is already clear that the difference between the production cost and the earnings will be substantially reduced. The earnings will cover 87 percent of the production cost as against the present 58 percent.

Reductions in the prices of spare parts, fertilizers, electric power, new machinery, etc. are among the measures which will also affect the level of the production cost. The state farms will be classified, as before, according to their production and economic conditions in the production-economic groups

on the basis of the new financing principles. An investigation will be made to determine whether the classification of the state farms corresponds to what has occurred during the last two years. The state farms will be classified in five instead of the present seven production-economic groups.

In order to ensure profitability in each of the production-economic groups, the differences between the cost of products and the uniform compulsory-delivery prices will be covered by grants per koruna of earnings for the main products; the grants will differ according to the individual production-economic groups. The number of grants will be reduced from 24 products to eight main products because the uniform compulsory-delivery prices cover the production costs of a larger number of products than the former compulsory-delivery prices, and they ensure profitability of many products on state farms.

The first production-economic group will consist of state farms which will receive no grants; they will cover their costs fully by their earnings from the products sold at the uniform compulsory-delivery prices.

The second group will comprise state farms which will receive minimum grants for only four types of products. The purpose of these grants will be to balance the budget and to ensure a profit at a fixed percent. This group can operate without grants after the removal of the existing shortcomings (within one or a maximum of two years).

The third group receives grants for eight types of products. They are slightly higher than in the second group; however, even in this group their abolition is a matter of a short time.

The fourth and fifth groups will receive grants for eight products, and also grants per koruna of earnings for the rest of the products.

The grants to the state farms should be regarded as a temporary measure. The necessity of grants for the state farms is the result not only of the difference between the economy of these farms and the JZD's--mainly the difference between the compensation of work paid to the state farm workers and cooperative farmers--but also of the fact that the state farms are continuing to take over new land with inadequate livestock and inadequate buildings, and that a substantial area of their land is located in mountainous and submountainous areas--i.e., in areas of poorer production

conditions. The level of the individual compulsory-delivery prices was determined under the condition that JZD's with poor production conditions would continue to receive direct assistance from the state. The method of direct assistance, as adopted for the JZD's cannot be applied for financing the production of the state farms, which are national enterprises. Therefore, the system of grants has been maintained temporarily on state farms.

The fixed grants for the individual production-economic groups are augmented by the profit distributed to the individual production-economic groups so as to ensure a four-percent profit for the whole group. The profitableness of the whole production-economic group will be used to influence the expansion of the output of products which have priority. Consequently, the four-percent profit will not be spread evenly over all grants. The average percentage of profit is projected into individual-fixed grants at various levels according to the importance of the crop in terms of the requirements of the national economy and the correct territorial distribution of the production.

The above measure will force the state farms to use their own initiative in strengthening and expanding their economy and in introducing new production methods and new technology, because they will use their profit mainly to finance their own needs. For instance, the state farms that gradually become independent of grants will retain 50 percent of the planned profit in the first production-economic group, 60 percent in the second group, and 70 percent in the third group, to be used for the purposes of decentralized development. The state farms that gradually receive diminishing grants will retain 50 percent for decentralized development.

The state farms will receive 50 percent of above-plan profits or losses eliminated for the decentralized development and 25 percent for the workers' enterprise fund in order to stimulate material interest in surpassing the planned targets, improving the profits, or reducing the losses.

To stimulate the interest of state farms in the planned profit, it was decided to abolish the fund for the development of the state farm economy, and the allocation given to the state farms from the profit for the purpose of decentralized development will be paid directly to the investment account of the state farms at the bank; this allocation will augment the sums specified in the plan for decentralized development. If the above sums are used [by the state farms]

for its own investment, the cost of materials and possibly the wage funds will be covered by the supervising organ on the basis of the amounts actually paid out of the profit to the account of decentralized investment.

The new organization of financing the state farm operations includes additional measures aiding the development of the state farms in mountainous areas which apply the intensive methods of production prepared by the CSAZV [Czechoslovak Academy of Agricultural Sciences], and measures which should facilitate the transition to the new financing system after 1 January 1960.

Support for the development of the state farms in mountainous and submountainous areas will be granted for a period of three years in the form of a special grant by the KNV [Krajsky narodni vybor; Kraj People's Committee] within the framework of its budget, up to 15 halery per koruna of state-farm earnings. The state farms will use these special funds for the recultivation of land and the expansion of cattle breeding. In fact, it is a form of direct production assistance granted by the KNV over a specific period with the purpose of speeding up production on mountainous and submountainous state farms.

The state farms will receive contributions within the framework of the approved plan for covering the higher cost of operations aimed at reducing the unfavorable effect of the changing land base on production, and of fertilization of land devastated because it has not been used as arable land for some time or has not been cultivated well.

It was also decided that the state farms should receive specific contributions from the KNV budget to cover the cost of veterinary and sanitary measures in order to improve the protection of workers and to accelerate the liquidation of brucellosis and cattle tuberculosis.

The KNV budgets will also cover, besides the production cost plan, the cost of apprentices, of food for the brigade workers, travel expenses and compensation paid to the brigade workers. As before, it will cover losses in housing and enterprise canteens.

Together with land, the state farms took over a large amount of machinery and buildings which do not meet the requirements of large-scale agricultural production because of their small size or obsolescence and also raise the

depreciation quotas. It was therefore decided to discard and cease to amortize all obsolete machinery and buildings which do not serve agricultural purposes and to reduce the depreciation percentage of small-farm buildings which are used only temporarily.

It is quite clear that all the adopted principles concerning the financing of state-farm operations should be regarded as part of a series of measures. They are not the final measures concerning the improvement of production and reduction of costs; they should serve as an instrument for reaching a turning point in state farm economy. The changes in the methods of financing state farms should be used for the basic solution of problems of more intense production, greater labor productivity, and lower production cost. The new financing method could not become effective without a more rapid rate of growth in production and substantial reduction in the production cost.

The leading workers on the individual state farms must not regard the financing system and its changes as merely a concern of the bookkeepers. Their main goal should be a profitable economy established within the shortest possible time by expanding production and specialization under the given natural and economy conditions and by observing the state plan. All that will require great organizational effort in the near future. The leading state farm workers should pay increased attention to the preparation of the production-financial plans for 1960.

It is necessary that all workers acquaint themselves with the new principles of financing in connection with the preparation of the next plan, and that the directives and methodological instructions concerning the new financing methods be followed consistently.

New Wage System on All State Farms

The preparations for next year's plan are closely linked to the gradual introduction of the new system of workers' wages on state farms beginning 1 January 1960. According to the plan, the majority of state farms will establish the new wage system during the first quarter of the coming year and the rest by the end of the first six months. Its expected success will have far-reaching economic and political effects.

It must become an effective instrument for the utilization and mobilization of all resources of the state farms and the uncovering of additional reserves in labor productivity growth and consequently a growth in average wages.

The new wage system is being introduced because the existing wage scales and the entire system became obsolete. The development of wages on the state farms have caused disproportions between the individual sectors, especially in plant production, where it does not correspond to the social significance of this work. Therefore, wages in plant production will rise approximately 13 percent while wages in other sectors will remain at roughly the same level as before. However, it is possible that wages in the livestock sector will be reduced on those state farms where there has not been a correct wage policy. The wage scales will be computed along two wage curves; the higher curve will be applied on the state farms which will be able to accumulate an adequate reserve in the planned wage fund through a better organization of work, improved labor productivity, etc. The reconstruction of wages should stimulate the interest of the workers in improving their skills, labor productivity, and in more economical production, as well as in the application of new technological methods. The new wage systems should reduce the turnover of workers and create a stable body of manpower.

Experiences on five selected state farms show which method should be applied and which tasks should be maintained.

First of all, average wages can be raised not by increasing the volume of the wage funds but by raising the productivity of labor. This basic prerequisite has to be followed unconditionally. The introduction of the new wage system is not merely a question of wage or a change in the hourly rates and the forms of compensation. The state farms should concentrate on making a thorough analysis of the organization of their work and production on all their sectors in connection with the reconstruction of the wage system.

The state farms can prepare the reconstruction only by mobilizing for this work all state farm workers led by technicians, heads of divisions, farm units, entire farms, and working groups.

The reconstruction of wages would result in a higher cost and larger wage funds not covered by proportionate growth of production if the political and technical-organizational measures concerning the organization of work and production are not observed.

For instance, the ratio between piece-work and hourly wages in plant production, which is not well organized, will change from the present 80 percent of piece work and 20 percent hourly wages to 55 and 45 percent respectively. The hourly rates will increase approximately 45 percent. The danger based on the above change will not be removed without improving the organization of work which the heads of the groups and farms are trying to conceal by counting nonexistent hours of work and without removing the bad practice of recording the actual number of hours worked [sic]. Roughly 50 percent of the wages in livestock production will be paid for the care of animals. This means that the wage cost per unit of production will rise faster than before, when the whole compensation was tied to the economic profit wielded by the animals, if there is not a sufficient fodder base and improved skill of the personnel.

The leading workers on the state farms, beginning with the heads of the groups, should know that it is necessary to provide a sound basis for the organization of work and to organize the work so as to utilize all the available skill of the workers in order to ensure adequate production. These tasks cannot be fulfilled without the knowledge of the wage policy, the standard time requirements for the individual operations, and other principles and measures of the wage system. There is too much inconsistency in the production planning, resulting in inadequate employment of the workers, in exceeding the planned number, and their dissatisfaction with the wage level--which is compensated for by recording more hours than actually worked and by "black" wages without the actual fulfillment of the planned tasks. This practice, rather common on the state farms, must come to an end. The lack of interest on the part of the technical personnel and other leading workers in the wage problems and their underestimation cause serious shortcomings in the bookkeeping records which made them unreliable; an analysis of the bookkeeping data should serve as a basis for uncovering the shortcomings and reserves in the organization of work and employment of workers, as well as in the use of machinery.

There is another serious question linked to this problem. Who else is in a position to explain the principles of the wage policy to the workers and to apply the principles in practice than those who are allocating the work to the manual workers? Therefore, the principles and aims of the wage reconstruction and its significance should be explained to the manual workers by the technicians, not only at meetings but also during their everyday contact with the workers at the

various working sites. It is the only way of preparing politically for the reconstruction of wages, making its significance clear to every worker, and explaining to everybody the meaning of the tasks which he is expected to fulfill and the duties of the technical personnel toward the workers. It is the best way to increase the actual participation of workers in the management.

Past experiences have proved that cooperation of the technical personnel with the management and the individual divisions of the state farms is the greatest bottleneck in the reconstruction of wages.

One of the principal conditions for the reconstruction of wages is an increase in labor productivity through technical and economic measures in the field of technology and organization of work. This task has not yet been met in an adequate way on the state farms. The reconstruction of wages should be linked to the expansion of new technology in livestock as well as plant production; the technological and working methods should be checked; and the experiences of the best workers and innovators should be applied as much as possible.

The bookkeeping records on wages and work done--another basic condition for the introduction of the new wage system--are not sufficiently reliable and correct. Precise basic records on wages and work done are the basis for the correct application of the wage policy on state farms.

I believe there is no state farm which would not show some sort of shortcomings in this respect. It is necessary to remove them; this concerns the piece-work records--which should be checked by the technicians in all state-farm divisions, as well as the control of hourly wages, where it is necessary to check the number of hours worked as well as the volume of work done. It is also necessary to control the records of hours worked, analyze the fulfillment of the efficiency norms, inform the workers on the size of compensation before the start of any work, etc.

Tests made on five state farms showed that the introduction of the new wage system will take some time. Therefore, the krajs and state farms were already given instructions last May concerning the preparation of favorable conditions for the reconstruction of wages and improvement of the standards of work. The level of preparations in the individual krajs and state farms does not meet expectations. Not all the agricultural departments of the KNV pay enough attention

to this task and they do not show enough leadership. There are many cases, especially on the state farms, where the reconstruction of wages is left entirely to the wage and work economists. The reconstruction of the wage system is an important political and economic task which must not become a mere administrative measure; on the contrary, it should be the concern of all technicians and workers.

There is not enough time left until the end of the year, and many state farms and krajs must repair and complete unfinished work. First of all, it is necessary to check and make more precise the harmonograms prepared by krajs and on the state farms. Good work was done by the comrades in Hradec Kralove Kraj; they worked out more precise terms and tasks on the basis of the harmonograms of the individual state farms within the framework of the entire kraj as well as on the individual state farms. They were correct to assist in establishing commissions on state farms which would handle the problems of standardization, and others which would organize work. These commissions include technicians and functionaries of the individual sectors, as well as workers. Each state farm established a consultation center and a group of lecturers who would explain the reconstruction of wages. Nor were the current exchange of experience and control of the executed measures forgotten; this is achieved through a group of instructors of the agricultural department of the KNV and regular meeting of the managers.

Further preparations should concentrate on the following tasks:

- 1) a systematic creation of conditions at the working sites favorable for the introduction of the new wage system, especially in the fields of the organization of work, new technology, utilization of machinery, correct classification of the individual plots and stables, order in bookkeeping and its good results;

- 2) a qualification test of workers and organization of the additional training of workers through the ZSP [not identified] and courses; thorough re-education of the technicians, heads of the divisions, farm units, farms, and groups with regard to the principles of the new wage system, organization of work, new technology, and bookkeeping;

- 3) all measures should be taken in close cooperation with the Party and trade-union organs, and with the active participation of all workers; workers who neglect duties connected with the introduction of the new wage system should bear all the consequences.

The agricultural departments of the KNV and the state-farm managers are responsible for the preparation of the reconstruction of wages on state farms; any inconsistency and formality would produce unfavorable effects on the spirit of workers as well as on the economic results of the state farms.

There should be close cooperation with the trade-union organs in krajs, okreses, and state farms because it would not be enough to use only the work of the trade-union councils. All officers of the trade-union councils should participate fully in this work.

The introduction of the new wage system on the individual state farms will depend on the degree of its preparation and the whole method. The kraj people's committees and the ROH kraj councils will not permit the introduction of the new wage system where its reconstruction is not prepared correctly and the basic conditions are not created. It is, therefore, you, the leading workers, the Party and trade-union organizations on state farms, who are responsible for the establishment of the new wage system on state farms during the first half of next year. There is no doubt that workers will welcome this important measure; however, we have to keep in mind the fact that higher earnings are inseparably linked to higher production, growth of labor productivity, and constant reduction of the production cost.

The Five-Year Plan is Prepared From Below

The preparation of the Third Five-Year Plan on the basis of the principles contained in the Directives approved by the Central Committee of the Communist Party of Czechoslovakia is an important task of the state farms.

This time we are using for the first time a new method whose application should be emphasized in the preparations of the Third Five-Year Plan. The novel thing is that the Five-Year Plan is not specified from above but is prepared from below with the cooperation of the workers. The Central Committee expressed its conviction that with the help of the workers a five-year plan would be prepared which would provide a basis for the satisfaction of the needs of the socialist society in a better way than would the Directives themselves.

This is neither a technical question nor merely a matter of figures. The Five-Year Plan will be the answer of all the workers in all parts of the national economy to the question of how much they will contribute to the future measures concerning the rising standard of living of our population.

Our agriculture will have an important role in this endeavor and the state farms will be at the front of it.

Long-range planning concerning the state farms until 1965 indicates a possibility of raising the volume of gross production per unit of area by 58 percent as compared to 1957, labor productivity by 108 percent, and decreasing the production cost by 23.6 percent. The gross production per hectare of agricultural land should reach 5,494 koruny as against 3,477 in 1957.

Grain production should double between 1957 and 1965; sugar beet production should rise by 40 percent, oleaginous crops by 113 percent, hops by 109 percent, flax by 56 percent, meat by 89 percent, milk by 136 percent, and eggs by 248 percent. These increased volumes of the main products on state farms will correspond to the main tasks outlined by the Eleventh Congress of the Party: to produce 175 kilograms of meat per hectare of agricultural land, 730 liters of milk, etc. Compared with the 1960 plan these figures represent a rise in the gross production of 27.6 percent per hectare of agricultural land.

It is possible to attain and surpass the above goals. However, it means to prepare a list of new measures which are to be executed in each production sector and at each working site. Inscribing figures in the plan tables is not enough to ensure higher yields and better economy. This has been the method of "planning" in many places, with the corresponding results. This method will not be applied for the Third Five-Year Plan.

A critical evaluation of the existing production and production cost should become the starting point. It is the basis for uncovering weak spots and reserves.

Of course, the state-farm workers should concentrate on new things and their early and wide application. The "new" technology must cease to be new; it must become part of the current practice and open the gates of the future.

Speaking of the new things in the Third Five-Year Plan, we should ask ourselves what new technology is. "New" is sometimes something which is old elsewhere.

The most important thing is to observe the agro-technical and zootechnical terms, to organize the work well, to prevent losses of all kinds, etc. Even here there are many hidden reserves.

We should also bear in mind the fact that the development and strengthening of the socialist large-scale production on state farms will help to strengthen the socialist economy of the cooperatives.

Therefore, the state farms should demonstrate how to organize agricultural large-scale production in order to achieve the highest production per unit of area under various conditions and by applying new scientific discoveries and new technology. Wide application of new techniques and progressive introduction of large-scale technology should lead to much greater labor productivity and cheaper production.

We should also bear in mind the principle proclaimed by the Central Committee of the Party that the state farms must produce more and more cheaply per unit of area than the Unified Agricultural Cooperatives in the given production area.

The state farm workers will be helped by the publication of background information containing suggestions and topics on how to expand production and make it more economical in the individual production areas during the Third Five-Year Plan, and how to prepare the basic technical and organizational measures needed for reaching the planned goals. These suggestions and topics should be discussed with the workers and be adapted to the conditions at the individual state farms. The long-range plans for the Third Five-Year Plan of a state farm can be prepared only after a thorough analysis of the existing production level, determination of the possibilities of introducing new techniques and new technology, and after a discussion has been held on the tasks of the Third Five-Year Plan at each working site. Then the Five-Year Plan of each state farm will become a common obligation of all the state-farm workers on the eve of the 15th anniversary of the liberation of our fatherland by the Soviet Army.

In the period when we prepare detailed plans of the basic tasks of the state farms during the Third Five-Year Plan,

we shall have to pay more attention to some of the problems of management and organization of work on the state farms. Management has too many levels, is ineffective, and its weak spot is control. The management should be made more simple and be closer to production proper.

Organization, especially the organization of big farms, poses many problems.

All the above questions must be studied and solved in close cooperation with the people's committees, whose role in this respect will be much greater than in the past.

State Farms in the Forefront of Our Agriculture

The tasks of the state farms, greater independence of the production units, and the rapid expansion of new techniques and technology will require an ever-growing professional knowledge on the part of the leading workers, even on the lower management level. Therefore, the qualification of workers, especially of the technical and economic workers in the various divisions and production units of the state farms, is a serious problem. Some of the leading workers and technicians do not possess adequate professional knowledge and organizational ability, and the level of political education is especially low in a number of them.

These shortcomings are not being eliminated consistently, and there are still many cases--although to a lesser extent--where persons are being transferred or hired irresponsibly who have not proved to be qualified for the job.

This unpleasant situation and the shortcomings concerning manpower are among the main reasons for the unsatisfactory situation concerning the development of the state farms influencing their economic results.

It follows that we have to improve the situation of manpower first if we wish to meet all the tasks assigned to the state farms.

Leading workers and technicians who are likely to take over higher functions should be sent to boarding school courses which will be organized by the Ministry of Agriculture

(Ministerstvo zemedelstvi) or the kraj people's committees. The courses will be organized in order to raise the professional level of the leading workers as rapidly as possible and to create a sufficient reserve of able workers who could take over leading positions.

Of course, it will be important to make the right selection of these workers. We should not hesitate to send for training and to schools in general young people, the best among the workers, or former small and middle-sized farmers.

The execution of these measures can change the situation in state farm manpower within a short time.

However, the attention should be concentrated on training young people. The recruitment of young people for the work in agriculture brought slightly better results during the last school year, and some krajs have already fulfilled their planned quotas of apprentices for the 1959-1960 school year by 100 percent.

This success was caused to a great extent by the new organization in the education of agricultural youth, using the "cultivator-breeder" method in training apprentices, and by a greater interest on the part of the agricultural enterprises in young qualified workers.

The recruitment of young people and the conclusion of apprentice contracts do not complete the task.

We know that a young girl or boy, accustomed to the social life in a school, wishes to enjoy a cultural life besides their apprentice work. Therefore, it is up to the enterprise to create suitable conditions for the young people during and after their work.

The most suitable form for training apprentices is group training in apprentice centers or vocational schools. Many state farms have the means to organize vocational schools as the highest form of apprentice training.

In organizing a vocational school, the enterprise can use not only professional teachers but also its best workers who qualify for this purpose through their professional and political knowledge and character to train its future workers.

Good apprentice centers and a gradual organization of vocational schools on state farms, as well as the correct method of training apprentices, will turn these schools into an important instrument for the education of young workers for our whole socialist agriculture.

Workers and their continuous active participation in management and production control are decisive for the fulfillment of the given tasks, and rapid turnover in the state farm economy.

A well organized socialist management is the basis for developing the initiative of workers. Twenty-five thousand collective and individual pledges were made on state farms during the first half of this year, representing a value of 78 million koruny.

Workers on 155 state farms of the Prerov area pledged socialist obligations under the leadership of the trade-union organizations and the Party organs to honor the fifteenth anniversary of the liberation of Czechoslovakia by the Soviet Army, by raising production and reducing its cost during 1960. The obligations of the Horsovsy Tyn State Farm has become a model; this shows how to organize higher production and how to develop the initiative of workers through socialist competition. Some of the above obligations are being honored during the autumn work of this year. Socialist competition must be expanded and improved even more during the coming years. All obstacles preventing the full development of the will of workers to work better and more economically must be removed with patience and consistency. Everybody should understand that socialist competition and socialist obligations require the creation of conditions within the production process itself, the planning and organization of human work, and the publication of the results achieved by the workers; it is necessary to inform them on the future tasks to be achieved and to persuade them to work for their fulfillment. The competition inside the enterprise is an instrument which can contribute significantly to the above tasks. The achieved results are best evaluated by the workers themselves if they can be compared with the results of another division, farm, or working group. This is the basis of the competition, and the continuous evaluation of the result of two corresponding units makes it lively, helps in exchanging experiences, and promotes faster spreading of more advanced working methods.

The socialist obligations made to honor the fifteenth anniversary of the liberation of Czechoslovakia by the Soviet

Army have some flaws. They do not take into account a higher plant production which would cover the increased livestock production. The obligations do not include enough plans for the fertilization of land by all known agrotechnical methods, and land fertilization is often considered only a matter of some land-reclamation work. Systematic control of the results of the adopted obligations and of publicizing them will be an important factor in the obligations made to honor the fifteenth anniversary. However, the control should be a real one which will help to fulfill every obligation.

In connection with the development of socialist competition, it is also necessary to apply the new and higher level of this initiative which is represented by the collectives competing for the proud title, "Brigade of Socialist Work."

Over 300 working groups, including 101 state farms competed for the title during the first half of this year. We are obliged to state, however, that the movement is not well organized and is not sufficiently controlled by the trade-union organizations on state farms and in okreses and krajs. The competition for the title "Brigade of Socialist Work" includes not only obligations concerning production but also political and moral obligations; its economic basis should create a good working spirit within the groups competing for the proud title.

The high goals set by the Central Council of the Trade Unions (Ustredni rada odvoru) cannot be discounted; on the contrary, the content of the obligations should be discussed in the enterprise, okres, and kraj ROH councils, and measures should be adopted which would support the noble movement. The brigades of socialist work will make every effort to make their work, their family, their cultural and social life, and all their activities truly socialistic.

Our main task is to show the way, to teach, give advice, and help. The meaning and aim of this patriotic movement is splendidly demonstrated by a slogan created by some brigades of communist work in the Soviet Union, a slogan which says clearly: "Work better today than yesterday, and tomorrow better than today."

The above measures are aimed at the expansion of the state farm economy, and at developing them into profitable enterprises which would show the Unified Agricultural Cooperatives the way toward socialist large-scale production by means of higher production and economic results.

CZECHOSLOVAKIA

Possible Reserves for the Third Five-Year Plan

[This is a translation of an article by Frantisek Crkva in Statni statky, Vol II, Nos 11 and 12, 12 November and 19 December 1959, Prague, pages 244-245 and 268-269; CSO: 3594-N]

Work on the preparation of the draft of the Third Five-Year Plan is well advanced and the role of the state farms within the plan of our agriculture is growing clearer.

State farms with more than a million hectares of agricultural land are a very important factor in the agricultural Five-Year Plan. They have a correspondingly important place in the state budget.

The preliminary draft of the Third Five-Year Plan assumes that the net earnings of the state farms derived from production (earnings reduced by the value of purchased fodder) will rise 55 to 60 percent per hectare of land (in terms of equal compulsory-delivery prices) in 1958-1965. The growth of production is to be achieved by an increase in livestock density (number of heads per hectare of land) of approximately 40 percent of cattle, 10 percent swine, 150 to 200 percent poultry, and by a rise in plant production. Higher yields in plant production are to supply most of the fodder for the larger number of livestock and their higher economic utility (purchase of fodder per hectare will increase little), and are to cover the growing volume of production of industrial produce (sugar beets, oleaginous crops, flax).

The state farms face the very important task of attaining the higher per-hectare production by means of a simultaneous sharp rise in labor productivity (volume of production per worker). Compared with 1958, the rise will represent 96 percent by 1965 and will be 103 percent higher than in 1957. It means that the wage cost per hectare will drop by approximately 10 percent between 1958 and 1965. But the number of workers per hectare will be reduced even more because we are planning a rise in the average wages besides the rise in labor productivity.

The tremendous growth in labor productivity in plant production will be achieved by means of higher fertilization ratios, which will be raised almost 100 percent; by expanded mechanization of all types of work in plant production, which will cause a roughly 80-percent rise in the per-hectare consumption of fuels and a roughly 35-percent rise in the depreciation quotas of machinery and buildings; and by mass application of new technological methods in livestock production (automatic feeding of hogs, open cattle barns, coops for hens, etc.).

But this would not be enough. A large portion of the production means and especially the workers needed for the growing intensity of production (more livestock, more intense cultivation of land) will be acquired by mobilizing the existing reserves inside the state farms. Undoubtedly the largest reserves are in the organization of work, utilization of workers, their working time, and in the management system.

An analysis made of the reserves in 1958 by comparing the state farms within individual krajs revealed some big contradictions which should be studied carefully. An analysis was made of all state farms in the Czech krajs on the basis of the 1958 annual reports. All agricultural land was converted to reduced hectares (redukovaný hektar) in order to obtain a comparable basis; the traditional coefficients were discarded in favor of new coefficients based on the volume of work required for each type of soil. At the same time, arable land was classified according to the different areas.

The conversion of agricultural land to the reduced area was made on the basis of the following coefficients: arable land in the corn area--0.95; arable land in the sugar beet area--1.15; arable land in the potato area--1.00; vineyards--7.00; intensively cultivated orchards and gardens--1.75; meadows--0.40; pastures--0.20. The average number of livestock was similarly converted into cattle units by using the following coefficients: cows--1.00; other cattle--0.33; sows--0.55; other swine (except sucklings)--0.11; sheep--0.70; horses--1.25; poultry--0.02.

In this way the data on all the state farms were converted to a common denominator (as far as wages are concerned), and the different consumptions are thus determined only by economic conditions.

Let us now investigate several specific cases.

Table 1

	State Farm		
	Kolin	Novy Bydzov	Difference
Area of reduced hectares, 1 January 1958	4,580	4,871	+ 291
Average head of livestock in terms of cattle units in 1958	3,055	2,894	- 161
Earnings for agricultural produce in 1958 after sub- tracting the purchased fodder, 1,000 koruny	11,395	11,732	+ 337
Wages and health insurance premiums in 1958, 1,000 koruny	12,559	17,171	+4,612
Consumption of fuels in 1958, 1,000 koruny	1,140	1,234	+ 94

Table 1 contains two state farms: Kolin and Novy Bydzov. Their size is approximately the same, they have approximately the same number of cattle units and are located in the same area. The land on the Novy Budzov State Farm is not all of the same quality as that of the Kolin farm, and it therefore operates under somewhat more difficult conditions. We used the coefficient 1.15 to convert all its arable land to reduced hectares for the purpose of evaluating the volume of wages. The fact that on an area 291 reduced hectares larger and with 161 heads fewer livestock it needed 4,612,000 koruny more for wages and health insurance premiums than the Kolin farm is unbelievable. There were no differences in production and the Kolin farm was not more mechanized, since in 1958 it consumed 1,138,000 koruny worth of fuels and lubricants while the Novy Bydzov farm consumed 1,235,000 koruny for that purpose.

Knowing this situation, we can understand why the Kolin farm can manage without grants and why the Novy Bydzov farm even asked to be reclassified as a third production economic group.

To make the situation clearer, we have to mention the changes in the land base of both farms up to 31 December 1958, because the 1958 cost includes the cost connected with the land received during the year. Again, the data speak against the Novy Bydzov farm (see Table 2).

Table 2

State Farm-- Type of Land	Area in Hectares 1 Janu- ary 1958	Area in Hectares 31 Decem- ber 1958
Kolin		
Arable land	3,744	4,419
Agricultural land	4,051	4,802
Novy Bydzov		
Arable land	3,759	3,617
Agricultural land	4,601	4,417

Table 3 contains data on the use of the wage funds by both state farms in 1958 and points out the greatest differences as well as the possible reserves in the principal sectors of operation.

Table 3

Sector of Operation	Kolin	Novy Bydzov	Differ- ence	Per- cent
Plant production	4,584	5,236	652	114
Livestock production	3,201	4,052	851	127
Auxiliary production	1,945	3,757	1,812	193
Production and all- enterprise cost	2,829	4,126	1,297	146
Total	12,559	17,171	4,612	137

The cost of auxiliary production on the Novy Bydzov State Farm is substantially higher in the farm workshops as well as in the use of trucks and teams. But the greatest difference is in construction (1,126,000 koruny), which is probably distorted even by wrong data in the report, because one part of the report of the Novy Bydzov State Farm states that the construction cost accounted for as the cost of current repairs was 2,528,000 koruny, and in another part it says that the cost of current repairs of the buildings was only 835,000 koruny. Perhaps a correction of a possible error would reduce the difference.

The present big differences, especially in overhead costs, are partially justified by the fact that the Kolin farm has seven divisions with 18 operational units while the Novy Bydzov farm has nine divisions with 30 units. The above serious facts indicate the presence of very important reserves on all state farms, and they should induce all agricultural

workers in okreses and krajs to seek ways to use the land base to create conditions favorable for socialist large-scale agricultural production and a rapid growth of its labor productivity.

Similar examples are offered by the state farms in Vlasim, Votice, Jihlava, and Dolni Rozinka on one side and Cesky Krumlov, Malonty, Dalovice, and Bohumin on the other (See Table 4).

Here, the economic conditions of the second group of farms are undoubtedly worse, but the data indicate large reserves on these state farms which could be made available by freeing workers for the planned growth of intensity of production.

Table 4

State Farm	Area of Reduced Hectares 1 January 1958	Average Head of Live-stock in Terms of Cattle Units in 1958	Earnings for Agricultural Produce in 1958 After Subtracting the Purchased Fodder 1,000 Koruny	Wages and Health Insurance Premiums in 1958 1,000 Koruny	Consumption of Fuels in 1958 1,000 Koruny
Vlasim	3,540	1,658	5,069	7,476	859
Votice	3,483	1,727	4,824	7,366	726
Jihlava	3,762	2,061	6,986	8,157	738
Dolni Rozni	3,501	2,057	5,496	8,607	615
Cesky Krumlov	3,082	1,895	5,374	10,774	885
Malonty	3,386	1,983	4,628	12,622	1,116
Dalovice	3,715	2,237	2,315	12,211	950
Bohumin	3,351	2,495	5,976	11,114	924

* * *

Four of the above state farms have a substantially higher volume of wages and health insurance premiums than the other four.

We shall now investigate more closely two of the eight farms with almost the same area of land and the same number heads of livestock. They are the Jihlava State Farm in Jihlava Kraj and the [following] state farm.

Dalovice in the Border Region of Karlovy Vary Kraj

It is obvious that the comrades in Dalovice work under very difficult conditions; my purpose is only to show that the majority of the border-region state farms possess a large volume of their own reserves for the growing production tasks of the Third Five-Year Plan in the number of their workers as well as their available materials. We should bear in mind that the relatively largest production growth (per hectare) is assumed to take place precisely in the area where state farms like Dalovice are operating and that this area is expected to share the largest volume in the planned growth of labor productivity during the Third Five-Year Plan.

The Dalovice farm increased its land base much more in 1958 than the Jihlava State Farm, but this does not have much effect on our example since the transfer of land occurred only in the fall of 1958.

The total earnings of the Jihlava farm were 8,616,000 koruny; it purchased 1,726,000 worth of fodder. The total earnings of the Dalovice farm were 6,287,000 koruny; however, it had to buy 4,173,000 koruny worth of fodder (at least this is the figure indicated in the farm's 1958 balance sheet). This means that the net market production (after subtracting fodder) of the Jihlava farm represent 302 percent of that of the Dalovice farm. But Dalovice wages were 150 percent and fuel consumption 129 percent of the corresponding figures in Jihlava.

The source of wage differences on the above two farms are entirely different from those in Kolin and Novy Bydzov, as is shown in Table 5.

Table 5

Sector of Operation	Jihlava	Dalovice	Difference	Percentage
Plant production	2,645	5,500	2,855	208
Livestock production	2,184	2,647	463	121
Farm workshops	317	1,035	718	326
Other auxiliary production and overhead	3,011	3,029	18	101
Total	8,157	12,211	4,054	150

The main differences lie in the amount of wages in plant production and in the cost of the workshops.

The volume of earnings and purchase of fodder indicate that the higher cost of plant production on the Dalovice farm did not result in higher yields, although the differences in cost expenditures were actually very high.

There was a similar situation in fuel consumption; the Dalovice State Farm, besides having a higher fuel consumption per hectare of arable land, also had a higher consumption included in the production items and the all-enterprise overhead (40,000 more).

Comparison of the cost per hectare of land on the evaluated farms proves convincingly that the sources of higher production should be sought first of all in the organization of work and better utilization of the working time.

Special attention should be given to the situation on the Vimperk State Farm (not mentioned in the table), which in 1958 paid more wages (8,718,000 koruny, including health insurance premiums) than the Vlasim, Votice, Jihlava, and Dolni Rozinka farms, while having less than half of their area (1,626 reduced hectares on 1 January 1958) and approximately the same amount of livestock (1,788 cattle units); the market production was also 50 percent of the Jihlava production and reached 60 to 70 percent of the production of other farms.

Table 6

	Jihlava	Dalovice
Harvested area of arable land, in hectares	3,498	2,997
Wages from 1 January to harvest time in 1,000 koruny	1,810	2,590
Koruny per hectare	517	864
Meadows in hectares	582	1,597
Wages from 1 January to harvest time in 1,000 koruny	207	1,179
Koruny per hectare	356	738
Pastures in hectares	210	1,794
Wages from 1 January to harvest time in 1,000 koruny	22	151
Koruny per hectare	105	84

The third group of state farms will be compared in terms of the reduced area because the area of the individual farms is substantially different. Here, the difference in wages per hectare is also tremendous, but there are also differences in the volume of earnings per hectare. They indicate that the higher wages have been used in some instances to increase production, and the ratio of the wages per koruna of earnings dropped because production grew more than wages.

Examples and figures presented in this article would require a thorough analysis of the compared state farms and an investigation into the causes of the big differences directly on the farms and their divisions. Only such an investigation would reveal where the actual reserves are and where the differences are caused by different conditions.

Table 7 shows, among other things, the importance of the size of the farms as a factor of the volume of wages, especially in the case of the economic and technical workers; however, the size also affects the production volume (compare the large farms with a lower volume of wages: Kralupy nad Vltavou, Melnik, Slany, Petrohrad, Lubenec, Zatec, Hrusovany; and the small farms with a high volume of wages: Nymburk, Chrudim, Brno, Velke Pavlovice, Zidlochovice, Olomouc). The above example proves that sometimes it is necessary to look for the reserves in the opposite direction: the increased number of workers in some operational sectors would ensure the growth

Table 7

	Area of Reduced Hectares, 1/1/58	Average Heads of Livestock, in Cattle Units, 1958	Wages & Health Insurance Premiums per 1,000 Koruny of Livestock Production*	Total in 1,000 Koruny	Koruny Index	Rest of Wages and Health In- surance Premiums Per Re- duced Hectare	1,000 Koruny	Koruny Index	Earnings from Agricultural Activities Af- ter Deducting Purchase of Fodder Per Re- duced Hectare	Wages & Health Insurance Premiums per Koruna of Earnings
Kralupy n. Vlt.	8.767	4.250	7.650	10.769	1.228	87	15.611	1.780	109	1.18
Melník	8.924	4.075	7.335	12.844	1.439	101	14.038	1.574	96	1.44
Kutiná Hora	4.168	2.175	3.915	5.568	1.338	94	7.796	1.970	115	1.22
Petrohrad	8.527	2.166	3.899	12.033	1.411	100	10.907	1.279	78	1.46
Lubeneč	6.231	2.414	4.345	9.667	1.539	109	9.952	1.584	97	1.41
Zátec	16.881	5.660	9.108	23.221	1.376	97	24.525	1.453	89	1.32
Hrušovany n. J.	12.457	4.949	6.883	19.645	1.577	111	24.062	1.927	118	1.19
Opava	4.359	2.157	2.883	6.060	1.390	98	8.011	1.838	113	1.24
Total	70.364	27.235	49.023	99.807	1.418	100	114.826	1.632	100	1.30
Nymburk	3.748	2.345	4.221	8.202	2.186	154	9.080	2.423	148	1.37
Chrudim	3.915	2.225	4.005	7.822	1.998	141	10.303	2.632	161	1.15
Brno	3.198	1.869	3.064	7.617	2.382	168	11.078	3.464	212	0.96
Veiké Pavlovice	2.060	1.829	3.276	7.239	2.531	178	8.922	3.120	191	1.18
Zlatochovice	2.971	2.057	3.703	7.247	2.439	172	9.555	3.216	197	1.15
Olomouc	3.045	2.168	3.904	7.466	2.459	173	10.461	3.434	210	1.09
Prerov	3.330	1.570	2.825	7.663	2.307	163	8.359	2.510	154	1.23
Total	23.087	13.954	24.935	53.296	2.310	163	67.757	2.937	160	1.15

*1.800 koruny per cattle unit of the annual average number of heads.

of labor productivity by attaining a large volume of production per hectare of land.

Applying the above examples, I pointed out the problem of the largest element in the cost of an agricultural enterprise. There are many other cases showing the difference in the wage volume, and the farm or kraj workers can find them by analyzing the situation of his farm or kraj. It would be impossible to try to solve the serious problem in this article.

An analysis of the fuel consumption, and the consumption of small and nondurable items per hectare shows, like the wage system, very large differences among the individual state farms and thus indicates substantial reserves representing million of koruny on many state farms.

The problem of the repair cost of the machinery and buildings would require a separate evaluation; here the situation is no better. A specific problem is the differences in the number of machines on individual farms and their depreciation quotas.

Before concluding this article I would like to repeat what I said in another article in the tenth issue of this periodical: the fulfillment of the tasks of the Third Five-Year Plan requires an immediate analysis of all the reserves by comparing the state farms and their divisions with the lowest and highest results achieved under the same conditions outside the kraj, and the introduction of the basic technical and organization and other measures with the purpose of removing the differences. Otherwise, all the mutual visits on the state farms and the whole system of cost accounting would be futile; we must not stagnate if we wish to accomplish all the tasks of the Third Five-Year Plan.

CZECHOSLOVAKIA

The Construction Materials Industry in the Third Five-Year Plan

[This is a translation of an article by Karel Dvorak in Planovane Hospodarstvi, No 12, December 1959, Prague, pages 905-914; CSO: 3616-N/a]

The construction materials industry holds an important position within the planned development of the Czechoslovak economy. The directives of the UV, KSC [Ustredni vybor Komunisticke strany Ceskoslovenska; Central Committee of the Communist Party of Czechoslovakia] and the government call for an 86-percent increase in the production of construction materials in 1965 as compared with 1960. There has never been such a sharp rise in the production of construction materials during a five-year period in the history of our national economy, although the growth during the First and Second Five-Year Plans was also great.

The expansion of construction materials production will be ensured by extensive investment construction at a cost of about 8 billion koruny during the five years. The total volume of investment in the construction materials industry in 1965 will be 60 percent higher than in 1960. It is assured that investment construction will be more economical in the future. More attention will be given to the mechanical equipment of the plants; the share of the building representing 54 percent of the total construction in 1960 will be reduced to some 38 percent in 1965.

The efficiency of the planned investment construction of the construction materials industry is expressed by the growth of the basic funds. One koruna of basic funds will produce 0.72 koruna of gross production in 1965, while in 1960 it will produce only 0.60 koruna.

The level of productivity of social labor in the individual branches of the national economy is decisive for the peaceful economic competition between socialism and capitalism. It is assumed that labor productivity in the construction materials industry will be 64.4 percent higher in 1965 than in 1960; the annual rate of growth will be 10.4 percent.

The greatest source of the scheduled big labor-productivity growth in this industry will have to be the most advanced technology, especially automation. The Third Five-Year Plan must give great attention to the problem of automation in this branch, because construction materials production has favorable conditions for automation, owing to the mass-production nature of its performance.

The construction of new plants and the introduction of new technological methods will favorably affect the production cost. The cost per koruna of products will be 84.60 halary in 1960, and this will be reduced to 71.33 in 1965--i.e., by 15.7 percent; consequently, the profitableness of the production will rise.

Expansion of Mortar Materials

Suitable construction materials permitting the use of highly efficient construction machinery and equipment constitute the basis for a systematically industrialized and economical construction industry.

Cement is the only material which fully meets all the requirements and can be applied for all purposes. The use of cement is steadily increasing, not only in the industrial and engineering construction but also in the construction of dwellings and public buildings. Concrete products are replacing various products which used to be made of timber (ties, poles), or of cast iron and steel (pipes, masts). Cement will be, because of its multi-purpose nature, the main construction material in the Third Five-Year Plan.

According to the directives of the UV, KSC and the government, the cement production will amount to 8.6 million tons in 1965--i.e., 134 percent more than in 1957, and 73.7 percent--i.e., 3.65 million tons more than planned for 1960. The scheduled cement production will permit the expansion of other types of production necessary for industrialized construction and will replace and save scarce materials, such as timber and steel.

In 1965, our per capita cement production will be 604 kilograms as against 274 kilograms in 1957 and 88 kilograms in 1937; it will be one of the highest in the world. The

Czechoslovak share in the world production will thus rise from 1.5 percent in 1937 to 2.2 percent in 1965.

The rate of growth of cement production in 1965 will be faster than the general industrial rate and the rate of steel production. There will be 0.81 ton of cement per ton of steel as against 0.71 ton in 1957.

The scheduled 1965 cement production will be reached partly through the construction and reconstruction of the equipment in the existing cement plants. Three new cement plants and two cement mills are to be built and seven cement plants reconstructed. The added capacity will amount to 5,516,000 tons of cement. Besides that, two more cement plants with a capacity of 1,610,000 tons will be under construction. The Ministry of Construction (Ministerstvo stavebnictvi) will spend more than one-fifth of the funds allocated for the construction materials industry on investment construction, reconstruction, and expansion of the cement industry during the 1961-1965 period. The new cement plants will be more efficient than those put into operation during the Second Five-Year Plan. High efficiency is also scheduled for the reconstructed and expanded plants, because only 338 koruny are to be spent per ton of capacity. The reconstruction, expansion, and construction of new plants must be focused on those sectors which consume much labor; this concerns especially mechanization in the quarries, transportation within the plants, and delivery units.

The total production cost of cement production has a favorable effect on increasing the production of cement which has better mixing properties. The ration of additions to clinker, which in 1960 represented 31.6 percent, will be raised to 35.2 percent in 1965. The higher ratio will not reduce the average quality of cement; on the contrary, the more advanced technology will improve it. It will mean savings on fuel and electric power, a lower cost of extracting and processing raw materials, and, last but not least, lower investment costs.

However, in order to achieve the 35.2 percent in 1965, it will be necessary to secure a sufficient supply of hydraulic additives (industrial wastes). Industrial waste materials especially suited for cement production are granulated blast-furnace slag and fly ash from electric power plants. Not enough attention has been given to the granulation of blast-furnace slag and, despite its short

supply, large volumes have been dumped on slag heaps. This has produced difficulties in metallurgical plants and the construction materials industry has been deprived of valuable raw materials. In order to produce more of the mixing cement, it will be necessary to install efficient granulation equipment in metallurgical plants which would produce a sufficient amount of granulated blast-furnace slag.

The new as well as the old thermo-electric power plants will produce large amounts of fly ash, which, because of its hydraulic properties, can be used in cement plants. It will be useful to induce the Slovak cement plants to use tuff besides industrial waste materials; this material is plentiful in Slovakia.

An important item of the Third Five-Year Plan is the saving on fuels in the cement plants. The construction of new and reconstruction of old cement plants must reduce the heat consumption per kilogram of clinkers to 1,321 kilocalories in 1965; it should not surpass 1,000 kilocalories in the new plants. Also, the electric power consumption per ton of cement should be reduced from 117 kilowatt hours in 1957 to 105 kilowatt hours in 1965.

The unselfish assistance of the Soviet Union will help us to abandon coal and apply oil in the rotary furnaces during the Third Five-Year Plan. This arrangement will enable us to produce 415,000 tons more of cement in the existing plants in 1965 and to free more than one million tons of bituminous coal powder for other branches of our national economy.

The planned composition of fuel necessary for cement production in the enterprises of the Ministry of Construction will then be as follows (in percent):

	<u>1960</u>	<u>1965</u>
Bituminous coal	32.1	-
Brown coal	4.6	13.0
Coke	17.7	4.7
Gas	21.6	-
Oil	24.0	82.3

The construction of new and reconstruction of old plants will improve labor productivity; it will rise from 930 tons per worker--as planned for 1960--to 1,200 tons in 1965. Also, the average size of the cement plants will change

substantially. The average production per cement plant was 283,000 tons in 1957; it will be 500,000 tons in 1965.

The directives call for a rise in the transportation of bulk cement; it should rise from 38 percent of all cement transported in 1960 to 66 percent in 1965. This will be made possibly by improved labor productivity in the cement plants, reduced losses during transportation, improved handling, and, because of the saving of paper sacks, there will also be a saving of timber. This measure is supposed to save 23,000 tons of paper representing about 188,000 cubic meters of timber. Of course, this means that the cement plants will install equipment for bulk-cement loading, as well as unloading equipment at the larger construction sites and plants manufacturing construction elements and other concrete products. The plan envisages the organization of local distribution centers for small consumers.

In connection with this task, it will be necessary to enlarge the number of freight cars and trucks. Analyses have proved that it will be necessary to secure more than 600 special trucks and 900 special railroad freight cars for the transportation of cement in bulk during the 1961-1965 period. One truck hauls an average of 10 tons of cement to an average distance of 30 kilometers and a freight car hauls 45 tons. In 1965, 20 percent of the bulk cement will be transported by truck and 43 by railroad; the two transport means will haul 37 percent of the total volume of cement. Sheet-metal containers (200 to 230 kilograms) are under consideration for the transportation of about 100,000 tons of cement to small consumers.

The extent of the task is illustrated by the fact that the equipment for transporting bulk cement will cost about 700 million koruny in the Third Five-Year Plan. The transportation of bulk cement will save, besides paper and timber, about 500,000 tons of cement which would be otherwise lost through dust. Homogenization will be improved; this will mean a better quality of cement, which will in turn produce additional savings in consumption.

Lime is another important mortar material. According to the directives of the Party and government, its production will be 84.4 percent higher in 1965 than in 1960 and will total 4 million tons; this will be a sufficient volume to cover the requirements of the construction, chemical, and metallurgical industries, as well as those of other branches

of the national economy. It is assumed that more than 50 percent of the total lime production will go to industry and about 20 percent to the construction industry. The remaining 30 percent will be consumed by agriculture and the general public.

The heat consumption per kilogram of lime will undergo a basic change during the Third Five-Year Plan, although a large volume of lime will be produced in the old plants. The present average heat consumption per kilogram of lime is 1,376 kilocalories, and it is scheduled to be reduced to 1,050 kilocalories on the average and to 900 kilocalories in new lime factories in particular.

The design of the new factories should be improved in order to reduce the fuel consumption in lime furnaces and to eliminate as quickly as possible the operation of the worst furnaces requiring more than 1,500 kilocalories per kilogram of lime.

It will also be necessary to convert the shaft furnaces for exterior heating to interior coke heating, and to install ventilators for blowing air. Circular furnaces which are scheduled to stay should be equipped with automatic stokers; they will make possible the use of low quality fine-grain brown coal instead of high quality selected coal. These alterations will not cost much and can be accomplished within the framework of the decentralized investment program.

Seven new lime factories with a capacity of more than 900,000 tons, besides the reconstruction of a number of old ones, will be put into operation. The total number of lime factories in 1965 will be the same as in 1957, but their average size will increase from 23,000 tons to 40,000 tons.

The larger size of the factories and the mechanization of all operations--especially in quarries, crushing plants and sorting plants in large and medium size factories--will improve labor productivity.

According to the directives of the Party and government, labor productivity in lime factories is scheduled to attain a level of 760 tons of lime per worker in 1965 as compared with 400 tons in 1960. The 1965 labor productivity, however, will not reach the level of the most advanced lime factories in the capitalist countries because some factories with a low labor productivity will still be operating.

The rising industrialization of the construction industry will require a gradual elimination of the wet processes and the long and uneconomical preparation of slaked lime as well as curing of the lime mixture. It will therefore be necessary to use ground lime which does not have to be cured and lime hydrate. Therefore, the production of ground lime and lime hydrate is scheduled to rise 165 percent between 1960 and 1965. The use of ground lime in connection with mechanical activation is also advantageous from the point of view of labor and production costs. The preparation of the lime mixture from a ton of ground lime requires 1.5 hour and 10 koruny of cost, while bulk lime with the traditional slaking and curing requires eight hours and 80 koruny. Losses are only about 2 percent when ground lime is used while the application of bulk lime causes losses up to 50 percent.

The construction industry should use more hydraulic lime because it can replace low-grade cement which can then be used in the construction of buildings with minor stresses. This production change will bring about a substantial rise in the productive capacity of lime factories. The expansion of the production and consumption of artificial hydraulic lime types will depend mainly on the cost of the products. Today, hydraulic lime with a strength of 100 kilograms per square centimeter costs the same as 350 Portland cement and 450 reinforced Portland cement.

It is assumed that the production of natural and hydraulic lime will be 350 percent higher in 1965 than in 1960 with regard to its advantages.

Prefabrication, the Basis of the Industrialized Construction

The improvement of the quality of traditional construction materials, whose production was impossible to stop and start producing on an entirely new basis, was the beginning of the road leading to a more economical and rapid construction method. It would have been uneconomical and impossible to stop this production, regardless of the fact that the production of new materials would have been too small to cover the growing requirements of the extensive investment construction program.

Without solving the problem of lightweight concrete--which, with its good properties, is today the most popular construction material--and without a substantial rise in the production of cement and lime, the industrialization of construction would be impossible.

Lightweight concrete is the basis for the manufacture of large prefabricated wall elements; their use will make possible the transfer of the majority of the construction processes to modern and highly mechanized factories operating on assembly lines. The construction site will become a place where only assembly operations are carried out.

Analysis proved that masonry made from big units can reduce the weight of structures three to four times as compared with brick walls, the size of manpower at the construction site five to six times, and the construction costs 1.5 to 2 times.

The heavy concrete fillings (sand and gravel) will be gradually replaced by lightweight materials, especially blast-furnace slag, cinder, tuff, tuffite, diatomaceous earth, various types of expanded earth and slate, fly ash caught in filters from the hearths of large electric power plants, etc. Large electric power plants and their units produce large amounts of ashes and cinder which can be utilized in our national economy.

Therefore, nine steam electric power plants will build porous-concrete factories during the Third Five-Year Plan. The concrete will be made porous by a chemical method through the addition of aluminum powder, which decomposes water and frees hydrogen. Depending on the type of rock, it is possible to acquire a relatively light concrete weighing from 1,000 to 1,600 kilograms per cubic meter.

The directives of the Third Five-Year Plan call for a rise in the production of the wall units (except for brick blocks) made of lightweight concrete, which in 1965 should be more than eight times larger than in 1960, and should reach an output of 3,430,000 cubic meters of construction parts--i.e., 1,750,000 cubic meters more than in 1960.

Use of the construction parts in 1965:

	<u>Percent</u>
Apartment construction	54.4
Construction of farm buildings	9.3
Construction of industrial buildings	8.3
Construction of public buildings	11.6
Other	16.3

The bulk of the construction parts will be used for the construction of apartments and public buildings where standardized parts can be used best.

The share of the production of prestressed concrete construction parts is scheduled to rise (from 3.2 percent in 1960 to 15 percent in 1965). The prestressed parts will permit full utilization of the good mechanical properties of the basic special materials, such as steel. They will require less steel and will be lighter.

Prestressed concrete will in many cases replace structures and products made now to a great extent of steel or wood. For instance, railroad ties of prestressed concrete will save about 9,000 cubic meters of timber during the Third Five-Year Plan, regardless of the fact that the concrete ties last twice as long as wooden ties. The share of the concrete ties in 1957 was 14 percent and will be 36.2 percent in 1960 and 58.5 percent in 1965. The gradual replacement of wooden poles and masts for electric-power lines by concrete poles will reduce the timber consumption by 40,000 cubic meters.

The growing production of concrete bridge structures will become important because, according to the Party and government directives, the Third Five-Year Plan includes extensive reconstruction and modernization of the road network, including extensive reconstruction of bridges and locks both of which are a bottleneck in the road network. The prefabricated construction elements, especially of prestressed concrete, will help to eliminate these deficiencies quickly. The use of prefabricated parts will also facilitate the construction of thruways across the republic, because the construction of their bridges [by traditional methods] slow down their construction. The life of a concrete and reinforced concrete bridge is about 120 years, while steel bridges last only about 80 years and wooden bridges only 9 to 11 years. Concrete bridges require practically no maintenance, while steel bridges require a substantial amount of maintenance work.

As far as the production of the parts is concerned, it will be necessary to create conditions for the transition from the present intermittent production method to a new advanced vibration-drawing method based on the principle of a continuous formation and thickening process. The advantages of this method in comparison with the method using a universal line are illustrated in the following table:

	Vibration- Drawing Line	Universal Line
Production per shift, cubic meters	93	64
Annual two-shift production, 1,000 cubic meters	50	35
Number of workers at the line	5	7
Investment cost, million koruny	2.5	3.8
Production per worker on the line, cubic meters	18.6	9.5
Production per worker in the factory per year, cubic meters	270	206
Investment cost per unit of annual production, koruny per cubic meter	50	109

The introduction of the manufacture of construction parts through the vibration-drawing method will bring unquestionable advantages as compared with the present universal production method. The production per worker can be raised by 30 percent; a cubic meter of the annual production will require 33 percent less in investment, and cement consumption will drop and the quality of the products rise.

Tasks in the Production of Traditional Masonry Materials

Although the production of construction parts will rise substantially during the Third Five-Year Plan, it will be necessary to raise the production of traditional masonry materials--bricks--during the Third Five-Year Plan.

Brick production is scheduled to rise 19.3 percent from 1960 to 1965, especially by operating the brick factories all year around instead of only for a certain season. The number of brick factories operating all year around was only

59 percent of the total in 1957; it is scheduled to be 80 percent in 1965. This will eliminate the bottleneck of the majority of the brick factories--the imbalance between the capacity of the drying kiln space and furnace space. A number of factories with a large supply of brick clay will be reconstructed and will concentrate on the manufacture of thin-wall materials and materials which will possess the properties of the most advanced modern construction materials, thus making possible the industrialization of our construction.

Burned brick, with its shape and weight, does not meet the requirements of quick and economical masonry work. Therefore, the majority of the brick factories are scheduled to switch to larger sizes of bricks; this will reduce the number of joints and the consumption of mortar. In order to reduce the specific weight, the bricks will be hollow. The trend away from burned bricks of normal size to larger elements can be observed in most countries. It has been very marked in the German Democratic Republic.

The conversion to the production of hollow bricks will require little reconstruction in the brick factories. However, it will require better processing of a higher quality clay. The thickness of walls should be reduced to make construction more economical; this will reduce the volume of bricks required. In reducing the thickness the production cost per square meter of masonry will be reduced 35 to 38 percent (besides the savings in transportation).

Therefore, the Third Five-Year Plan concentrates on the production of hollow elements of larger size. This is shown in the following table (in percentage of the total volume of construction materials):

	<u>1957</u>	<u>1960</u>	<u>1965</u>
Burned bricks	85.8	76.6	57.5
Percent of hollow bricks	0.9	23.2	45.5
Unburned bricks	13.8	19.8	26.1
Percentage of larger sizes	89.5	94.4	95.0
Wall panels and lightweight concrete units	0.4	3.6	16.4

The table shows that the share of bricks in the total volume of construction materials will decline from 86 percent in 1957 to 58 percent in 1965, despite the rise in their production. The situation is different in unburned brick production, which will grow faster than that of burned bricks.

The reconstruction of the brick factories should reduce the number of workers per million brick units from the present eleven to twelve to eight workers.

The rise in labor productivity in the factories operating all year around will depend especially on the transportation of raw materials and semifinished products between the pressing installation and furnace. The seasonal factories, as long as they exist, must reorganize their working methods; especially, they must improve the utilization of their production equipment. Higher labor productivity will eliminate hard labor and improve working conditions. Some of the working methods have not been changed for years. This applies especially to the charging and discharging of the circular and chamber furnaces; these operations are among the most difficult in the construction materials industry. Therefore, it will be necessary to concentrate on the mechanization of this difficult work inside the furnaces.

The heat-saving methods used in cement and lime plants will also be used here. In order to achieve the planned target, it will be necessary to observe the heating rules and to give more care to the furnaces, including their maintenance. Similar measures should be taken in the drying kilns.

Roofing Materials and Their Structure

The consumption of roofing materials is now divided into 47 percent fired tiles, 8 percent cement tiles, and 45 percent asbestos-cement tiles. Fired tiles will remain the first roofing material even during the Third Five-Year Plan despite the trend to replace them by lighter materials or to switch to the flat roofs.

The surface of the roofs covered with fired tiles will gradually decline in relation to other roofing materials, but in absolute figures the production as well as the consumption of fired roofing materials will rise because of the growth of the volume of the investment construction.

In order to secure the production of fired tiles, which is scheduled to rise 53.3 percent between 1960 and 1965, new capacities are to be added by the construction of new and the reconstruction of old factories.

The cement-tile production will increase by almost 50 percent during the Third Five-Year Plan. This material will be used especially in places where there is a shortage of suitable material for the production of fired tiles. For the time being, cement tiles are not economical from the point of view of their production cost, which is 16 percent higher on the average than in the case of fired tiles. In order to reduce the production cost and increase labor productivity in roofing work, a production of tiles is planned which would be larger and thinner; this would also make for lighter weight in the rafters.

Second in importance after fired tiles is asbestos-cement roofing material. Its production will grow somewhat more slowly than that of the two other materials, despite the fact that it is more advantageous in all respects. The main reason for this is that the production of asbestos-cement roofing materials depends on imports of asbestos and because asbestos is used more economically for the production of asbestos-cement pipes, which can replace metal pipes.

The total production growth of roofing materials (27.9 percent above 1960) during the Third Five-Year Plan will be slower than the total production of all masonry materials; the reason for this is that some of the future buildings will have flat roofs and their average heights will be greater.

The following table contains data on the advantages of the individual types of roofing materials:

Total Production Cost per Square
Meters of the Roofed Surface,
in Koruny

	<u>Production</u>	<u>Assembly</u>	<u>Total</u>
Normal fired tiles	10.50	6.80	17.30
Drawn fired tiles with grooves	8.70	3.70	12.40
Stamped fired tiles with grooves	8.90	4.40	13.30
Cement tiles	11.30	3.70	15.00
Asbestos-cement materials for laths	7.00	3.90	10.90
Asbestos-cement materials for casing	7.00	6.00	13.00
Corrugated asbestos-cement boards	10.70	3.85	14.55

It is clear from the table that the smallest total production cost is that of asbestos-cement materials for laths, followed by drawn fired tiles with grooves. If we compare the amount of timber needed for the roof structure of the various roofing materials, the advantage of asbestos-cement materials is even more noticeable.

Pipe Materials in the Third Five-Year Plan

The extensive investment construction within all branches of the national economy during the Third Five-Year Plan requires a substantial rise in the production of pipe materials, especially those which can replace metal pipes. Production of the pressure and discharge asbestos-cement pipes will quadruple from 1957 to 1965, while the production of cast-iron pipes is scheduled to rise only 27 percent. Production of glass pipes is scheduled to increase sixfold and the reinforced-concrete and prestressed-concrete pipes fivefold. The production of synthetic-material pipes will increase almost fivefold; however, their share in the total pipe production will still be small.

The volume of the planned construction of water-supply systems would not even nearly be covered by the present production volume of cast iron and steel pipes. This kind of material is used increasingly for the construction of gas pipelines and oil pipelines. Therefore, it will be necessary to concentrate on the use of nonmetallic pipes, to increase their production, and to solve all the detailed design problems necessary for their successful use.

The ratio (in percentage) of the individual types of pipes in the total production of the Third Five-Year Plan:

	1960		1965	
	Discharge	Pressure	Discharge	Pressure
Asbestos-cement pipes	20.0	34.7	22.0	37.1
Cast iron pipes	14.1	54.2	7.0	27.8
Glass pipes	-	6.0	1.1	9.1
Reinforced and prestressed concrete pipes	32.5	5.1	36.2	25.2

[Table continued]

Earthenware pipes	32.8	-	30.1	-
Pipes of synthetic material	0.6	-	3.8	0.8

The share of the cast-iron discharge pipes will gradually drop from 14 percent in 1960 to 7 percent in 1965, and the share of cast-iron pressure pipes from 54 percent in 1960 to 28 in 1965. More than half of the pressure pipes in 1960 will be made of cast iron; in 1965, more than 60 percent of them will be made of asbestos-cement and prestressed concrete. The use of glass and synthetic-material pipes will increase.

* * *

The Party and the government assigned important tasks to the construction materials industry within the framework of the tremendous undertaking of our national economy aimed at completing the building of socialism. The fulfillment of these tasks will form the basis for the successful development of our new industrial plants and new dwellings, as well as the greatest possible satisfaction of the demand of our population for construction materials. Of course the goals can be met only if they are pursued purposefully and with enthusiasm, not only by the workers in the construction materials industry but also in all other branches of our national economy.

CZECHOSLOVAKIA

Changes in the Method of Drafting the Five-Year Financial Plan and the Production Cost Plan

[This is a translation of an article by Jaroslav Libus in Planovane hospodarstvi, No 12, December 1959, Prague, pages 915-928; CSO: 3616-N/b]

A number of measures have been adopted dealing with specific problems and eliminating certain minor deficiencies which appeared in the financial-planning methods and the production cost planning methods; the measures are based on experiences of enterprises, economic production units, and central organs during the preparation and execution of the 1959 plan, the discussions on the directives concerning the Third Five-Year Plan, and the solving of problems related to material assurance of liquid financial means. The changes improve the new planning and financing methods.

The methodological instructions on the Third Five-Year Plan contain some formal adjustments, minor material changes, and certain specifications and improvements in the sectors of the financial plan, the cost plan, and the profit-formation plan.

First of all, special methodological instructions are being issued on the five-year financial plans of the economic organizations, as well as special instructions on the five-year financial plans of the budget organizations and kraj people's committees. With the difference in their economic nature, this division seems to be reasonable for the time being. Besides that, the method of preparing the state budget and the summary financial plan, as well as their structure, require this division. The division of the methodological instructions makes it possible to improve them and to adjust those concerning budget organizations to the purposes of social-consumption planning. Instructions concerning economic organizations are suitably merged with those on production cost planning (and profit formation). This arrangement deals better with the complexity of the problem and balances the structure of the financial plan. However, the independent function of the production cost plan with regard to the distribution of the social product and its significance in improving the efficiency of management are not weakened by the above measures.

The methodological instructions on the five-year financial plans and the production cost plans contain only the basic provisions. All detailed instructions of an operational character are excluded because they are included in ordinances and other directives (such as provisions on the financing of the various costs related to investment construction, financing of the growth of liquid funds, granting of credits, provisions concerning the transitional periods, etc.). Also excluded are instructions on the methods of preparing the plans, since they are changed according to the actual requirements and conditions, as well as the list of the central organs with the norms of enterprise material interest (their number will be gradually expanded).

To illustrate the situation, the adjusted methodological instructions contain a list of indices fixed by the directives and the Five-Year Plan. As far as the norms of enterprise material interest are concerned, the indices are the percentages of the increments of profit (or profits) and of the depreciation of the basic funds for the individual years of the Five-Year Plan, and the supplementary grants by the state budget for the individual years of the Five-Year Plan (with the possibility of adjustments with regard to indisputable changes in the organization, prices, methods, and material problems). It also concerns the possible advantages granted with regard to the rates of the profit-increment shares under certain conditions (usually for an increase in the expected profit increment), and the conditions and supplementary tasks concerning the norms of enterprise material interest (with the possibility of adjustments according to the actual situation during the individual stages of the planning work). As far as the production cost is concerned, the task will be their percentual reduction during the Five-Year Plan per individual branch. Indices for the Ministry of Foreign Trade (Ministerstvo zahraničního obchodu) will be the ratio between foreign and domestic prices (SVC [not identified]) for the exports and imports during the individual years of the Five-Year Plan. The ministries without norms of enterprise material interest will not apply the specified five-year profit-formation plan, because this index, expressed in absolute figures, did not prove successful in the 1959-1960 perspective plan. As a rule, the task of reducing the production cost will be sufficient to meet the requirements. Tasks concerning profit formation in these ministries will be determined in the measures of the government dealing with the annual state plans and budgets.

As far as changes in the plan are concerned, the methodological instructions repeat the old principle that the norms of enterprise material interest (i.e., percent rates) and the five-year tasks concerning cost reduction can be adjusted only by means of complex changes in the Five-Year Plan, with the exception of the liquidation of reserves up to the stage of the governmental measures concerning the annual plans. However, the following changes can be made without changing the norms:

a) Minor changes in prices, organization, and material problems within the framework of measures taken by an enterprise supervising organ on the basis of its financial reserves.

b) Indisputable changes in prices, organization, and material problems concerning a large number of organizations (usually several ministries). These are executed by means of adjustments in the level of supplementary grants from the state budget (from a supervising organ), and possible by means of adjustments of conditions and supplementary tasks; these measures are executed by the Five-Year Plan, governmental measures on the annual state plans and budgets, and by the annual state plan and state budget (including their changes).

The task of the above measures is to simplify the changes in the plan and stabilize the norms of enterprise material interest at all levels; these are important as a means of strengthening their stimulating function. However, they are not a concession with regard to complexity in the changes of the plan.

Principles Concerning the Specification of the Norms of Enterprise Material Interest

The principles on which the norms of enterprise material interest are specified are a significant improvement on the methodological instructions. The objective differentiations should prevent linear and mathematical specification. Their efficiency should be further improved through a suitable application of norms, rates, and conditions with regard to the actual situation and possibilities and with regard to the envisaged task. The minimum material interest should be ensured by the provision on the minimum profit-increment share (20 percent) and the principle according to which decentralized investment is covered by the profit-increment share.

This principle is fully applied in the directives of the Third Five-Year Plan. The following is the method of financing decentralized development in the central organs having norms of enterprise material interest in operation (in per cent):

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>
From the depreciation share	67.6	62.6	62.6	61.6	61.0	60.0
From the profit-increment share (profit share)	16.3	22.6	22.5	24.3	25.4	29.8
From the state budget	4.4	13.8	13.8	13.1	12.7	9.4
From investment credit	4.6	-	-	-	-	-
From other sources	7.1	1.0	1.1	1.0	0.9	0.8

Higher rates are fixed for central organs with a production concentrated on investment development; almost all central organs applied the norm with the greatest mobilization effect--the profit-increment share.

In order to achieve a better effect, the norms should be specified according to enterprise units by means of the most suitable forms; in practice, this means to improve and expand the chozraschot, to familiarize workers with the specified tasks and indices as well as with the various levels of plan fulfillment and, finally, to harmonize all economic suggestions. The long-range nature of the norms of enterprise material interest is being stressed by the principle of maximum stability and the principle of their specification for all the years of the Five-Year Plan. Exceptions must be justified; otherwise the proper organizations could not get a long-range picture of the possibilities of their development and could not prepare drafts of the Five-Year Plan or the annual plans in a correct way.

There is also the relation between the norms of enterprise material interest and the informative ("motivation") indices. These indices should be specified only if necessary, and their specification should show the degree of their binding nature. Many informative indices limit the jurisdiction of the enterprises, weaken the effect of the long-range norms, and sometimes impede initiative without any purpose. The possible specification of the volume decentralized investment development in absolute figures beside the norms of enterprise material interest by which the specification is partially determined should also be regarded as an informative index. The specification of the financial plan, including the norms of enterprise material interest, is made according to the enter-

prises and economic production units; the tasks and the indices of the production-cost plan, however, are specified according to the individual main activities. The informative and motivation indices determine the trend of the annual plan; deviations deteriorating the situation must be "motivated" [justified?] and discussed.

Since the liquid financial means are not forfeited at the end of the year, and since the credit obligations are transferred, it is usually impossible to take these circumstances into account as sources or means of determining the norms of enterprise material interest. It would mean either automatic liquidation of the liquid financial means or paying off of the investment credits. The view that the liquid financial means and unpaid investment credits are objective conditions should be understood so that these circumstances can be taken into consideration and influence the level of the rates of the long-range shares when possibilities are studied of acquiring additional sources and the mobilization character of the plan is determined.

Thus, if an enterprise has at its disposal liquid financial means left over from the preceding years, the rates of the norms of enterprise material interest are determined on the basis of the minimum of the decentralized planned requirements and on the basis of the maximum of the possible sources, because the liquid financial means not utilized make it possible to satisfy additional decentralized planned requirements and, consequently, to fulfill the planned targets in an easier way. On the other hand, unpaid investment credits force the enterprises to use those sources whose excess makes it possible to pay the instalments. The drafts of the five-year and annual plans should contain the liquid financial means as well as the unpaid investment credits, because here they no longer affect the rates of the norms but do affect the volume of the requirements.

Very important is the decision on the possibilities of differentiating the rates of the depreciation shares (until now the rate has been scheduled to be the same throughout the five-year plan) which would balance the fluctuations between the sources and requirements. However, these fluctuations (discrepancies) are balanced first of all by supplementary grants from the state budget or made by the organs supervising the enterprise, which also permit the execution of minor changes in the plan without having to recalculate and respecify the norms of enterprise material interest. The supplementary grants may be determined with regard to some specific

actions, especially if the enterprise is not materially interested in their realization. The balancing of the fluctuations between the sources and requirements through the various levels of the percentage shares of the profit increments (or profit) could sometimes produce undesirable effects in the direction of material interest. Therefore, the rates of profit increment or profit, which are the basis of the material interest, should remain stable throughout the Five-Year Plan or should gradually decline in order to mobilize forces for accelerated uncovering of the hidden reserves. On the other hand, rising percentage rates could postpone the uncovering of the reserves to subsequent years when the enterprise would receive a large share of its savings. The volume of the decreased rates is determined mainly by the possibilities resulting from the development of the profit increment (profit), from the suitability of the variable rates of the depreciation shares, the proportionality of the level of the supplementary grants from the state budget, etc.

The problems concerning the centralized financial sources and reserves¹ are being solved in the methodological instructions in accordance with the principles concerning the specification of the norms of enterprise material interest.

The adjusted methodological instructions also solve the problem of the responsibility of the central organs for the preparation of the specification, its consequences, and for the deficiencies in the management of the supervised branches. The fulfillment of the plan of payments (profits, depreciation, etc.), claims on shares of the created sources, fulfillment of the conditions of the norms of enterprise material interest and of the prerequisites for privileged rates, fulfillment of the tasks concerning reduced production cost, etc. are always analyzed from the point of view of the state plan and the state budget for the whole central organ regardless of whether the payments to the state budget are made by the economic production units (in a decentralized way) or by the central organ in a centralized way. The central organ answers for the fulfillment of the tasks by its centralized means. This measure prevents the possible speculative specification of the norms of enterprise material interest under a decentralized payment method, and prevents the creation of an adverse effect on the state budget by shortcomings in the specification or uneven fulfillment of the plan by the subordinate organizations.

Additional Measures Concerning Improved Efficiency of the Norms of Enterprise Material Interest

There have been no efficient material stimuli which would induce the ministries, economic production units, and enterprises to submit mobilization drafts of the Five-Year Plan; for them it has been enough to submit only the mobilization drafts of the annual plan in order to get all the advantages without taking any risk. Therefore, the adjusted methodological instructions introduce the privileged rates of profit increment (profit) shares as a compensation for the improvement of certain situations (usually the five-year profit increment) achieved through proposals concerning the Five-Year Plan and based on the directives.

The directives of the Third Five-Year Plan determine for the individual ministries and norms of enterprise material interest an increase in the share of the profit increment representing 0.1 to 0.3 percent per each percent of the increase in the five-year profit increment above the orientation estimate [sic]. The degree of this interest is different for the individual central organs (in specifications, also for the individual economic production units and enterprises) according to the significance which they have in terms of higher investment development and the development of the national economy. The higher rates are valid only for the draft stage of the Five-Year Plan in comparison with its directives, and provided the proper organization guarantees the proposed five-year profit increment by means of annual plans and their fulfillment. As long as the draft of the annual plan does not guarantee the profit increment as scheduled for the specific year of the Five-Year Plan, or as long as the corresponding task of the annual plan is not actually fulfilled, the privileged rate can be taken away partially or completely.

I. Directives of the Third Five-Year Plan

1. The rates of the profit-increment shares will rise each year by 0.2 percent per each percent of the increase in the five-year profit increment, as proposed by the Five-Year Plan and guaranteed by the annual plans and their fulfillment on the basis of the estimated plan of 2,890 million koruny.

2. Profit-increment share in percent:

1961	1962	1963	1964	1965
70	70	67	67	65

II. Drafts of the Five-Year Plan

1. Planned five-year profit-increment, 3,121 million koruny--i.e., 8 percent higher than the estimate of the directives.

2. Privileged rates of the profit-increment share in percent:

1961	1962	1963	1964	1965
71.6	71.6	68.6	68.6	66.6

The rates of the share are usually determined at one decimal point.

Conditions and tasks determined by the directives of the Five-Year Plan can be adjusted and supplemented by the approved Five-Year Plan, by governmental measures, the annual state plan and state budget, and their changes. In specifying the directives of the Five-Year Plan, it is possible to use the conditions and supplementary tasks as a means of solving some planning problems, such as ensuring the value of sales for the investment construction and exports, ensuring the production of some bottleneck materials, etc. In the future, these conditions will help to develop some of the more backward areas.

The economic organizations controlled by the Board of Commissioners (Sbor poverenci) are directed by over-all long-range norms which increase the jurisdiction of the Slovak national organs within the economic sphere, permit the creation of reserves, and make it possible to adjust the specifications to the requirements of the offices of the commissioners. The high profit-increment shares (100 percent) and high depreciation shares of the basic funds (90 percent), together with the supplementary grants from the state budgets and the smaller reserves, facilitate the task of the commissioners to assist in the development of Slovakia. The over-all norms are valid for the Five-Year Plan as well as for the

annual plans. The norms of enterprise material interest and other indices and tasks of the individual offices of the commissioners will be decisive for the current economic problems, for the claims of shares, and for the payments made out of the profits. At the same time, the tasks of the Board of Commissioners concerning reduction of the production cost have been limited to industry and building. The Board of Commissioners will specify the long-range norms according to the individual offices of the commissioners, either by means of the norms of enterprise material interest or by means of directed tasks. As a principle, the norms should be determined and allocated for the offices of the commissioners so as to correspond to the ministries.

The influence of the norms of enterprise material interest is complemented in a suitable way through material stimuli that increase the efficiency of the investment development according to the Ordinance of the Minister of Finance and Chief Arbiter of the Czechoslovak Republic (No 179/1959 of Uredni list) and according to the directives of the Ministry of Finance on compensations and premiums for more economical, better, and faster investment development (No 180/1959 of Uredni list).

It concerns the following proposals:

a) Rewards granted to the investor within the centralized development for the possibilities of saving discovered and successfully applied, reducing the maximum selling prices with regard to the cost determined in the approved investment task (approval of the ordered project) and for adjustments reducing the actual investment cost with regard to the maximum selling price as indicated in the approved order.

b) Premiums paid to the general designer for proving that the productive capacity can be reached in a more economical way without additional construction, for an ordered design with a reduced maximum selling price or other improved technical and economic indices with regard to the approved investment task, and for the determination and successful application of savings in the investment cost and improvements in other technical and economic indices of the operational projects or during construction.

c) Premiums paid to other suppliers of the investor for deliveries at less than the maximum selling price as approved in the order, for the improvement of other technical and economic indices in the operational project or during con-

struction with regard to the approved order, and for the early delivery of the order (at the investor's request).

d) Premiums paid by the general designer or other suppliers of the investor to their subcontractors (as in b and c).

Rewards and premiums debited to the account of financing the centralized investment and the investment account increase the value of the basic fund; other rewards and premiums have not this function. Rewards and premiums paid out of the operating means are included in production and circulating costs, etc. by distributing the cost of the future periods. Depending on the nature of the centralized investment development, the source of the rewards and premiums are the means allocated for financing the centralized investment development (or allocated for the central organs), means allocated for financing research and design work for the centralized investment development, and the operating means of the investor (in the case of the budget organizations, the various financial costs); in the case of decentralized investment development, these sources are always the decentralized means of the organizations (their own and other supplementary financial sources). The organizations use the rewards paid to their workers (20 to 25 percent of the balance), and the rest is used for improving their own financial sources.

The approved principles concerning increased material interest in the introduction of new technological methods also concern the method of financing the national economy. The tasks concerning new technology will be financed through the state budget (basic research, special assignments, schemes comprising a large number of producers and consumers of different ministries, schemes important from the social point of view but too expensive from the economical point of view with great risks involved) by means of the special-purpose financing method (economic production units) or out of the centralized funds of the ministries (tasks whose results will serve more enterprises of the same branch); they will also be financed out of the sources of the enterprises and the economic production units (other tasks). The financing out of the sources of the enterprises will be done, as before, by using the liquid means of the enterprises in the form of charging them to the costs of future periods; this will be done during the distribution of the cost of the manufactured products or through the technical-development fund, or through the payments of the customer.

The technical-development fund will be formed according to rates previously determined (fixed or percentage rates based on a suitable basis) debited to the production cost of the enterprise. The rates should be constant with few exceptions (for instance, rising rates of obsolete products) in order not to disrupt the effect of the material-interest norms; they are determined by the supervising organ within the framework of the norms of the enterprise material interest. The bank is entitled to grant credits up to a period of five years to complete the technical development funds (if there is an imbalance between the formation of the financial sources and the financial requirements). The fund can be augmented by the financial means of the enterprise (including the liquid means left over from the previous years), by the centralized sources of the supervising organ and by allocating to it 50 percent of the earnings received as payments for the prototypes financed through the state budget or the centralized sources of the ministry. Funds of the supervising organs are financed through payments made by the subordinate enterprises. The unused funds are not forfeited at the end of the year.

The technical-development funds cannot be used to cover investments, costs of procuring or depreciating special tools needed for producing new goods in series, or through a mass-production method, costs of starting production in newly-built plants, and the cost of tasks executed for other organizations to order.

Credit operations are being applied to a large extent in connection with all measures taken within the framework of management, planning, financing, and material interest.

For instance, a new type of credit is being created for technical development; terms of payments are extended up to five years for credits granted for preparatory operations in the extraction of construction materials (especially when organized by people's committees); credits are extended for financing marketing supplies; credits are being introduced to finance wages (instead of the formation of wage reserves), etc.. The investment credits will be considered in relation to the operating credits, and their role will also be to stimulate further production of investment means. The effect of the investment credits will be limited in the near future because of the relatively large liquid means accumulated during the last few years; therefore, these credits will not be stipulated and will not be taken into account in drafting plans, especially during the preparation of the Third Five-Year Plan and the annual plans.

Long-term investment credits will be granted for specific operations to eliminate bottlenecks and raise the quality of indices. Credits will not be granted to investors who will not make efforts to reduce the unfinished volume of constructions, improve the ratio of machinery to constructions, and accelerate the launching of new productive capacities in their plants.

In order to achieve the highest and most purposeful utilization of the financial means of the enterprises and economic production units, the Czechoslovak State Bank (Statni banka ceskoslovenska) is authorized to transfer funds from the investment accounts to the turnover accounts, provided the transfer will be used directly to cover the necessary increase in the enterprise liquid means or to cover liquid means in general. At the same time, the granting of operating and investment credits will become more strict, and the bank, in granting credits, will take into account the available funds of the enterprise. For instance, if the enterprise possesses unused means in its investment account which it does not need for the time being, the bank is entitled to refuse or even withdraw a credit intended to cover the oversized stock of the enterprise, and to allow only a transfer of the needed funds from the investment to the turnover account. The enterprise will be then interested in freeing its funds for investment development by accelerating the liquidation of unused means. This measure is another breakthrough in the former strictly defined purpose of the operating and investment funds, in addition to the differentiation of financial sources of the centralized means, the possibility of transferring the savings of liquid funds to decentralized investment, and besides the charging of interest on investment credits and active interest on investment accounts to the debit or credit of operating funds.

Certain exceptions will be granted for general repairs on the principle that the depreciation share of the basic funds [machinery] should cover at least the total general repairs. This will be the case (especially concerning minor investment) where the maintenance of this principle would reduce the material interest thanks to excessively low profit increments (below 20 percent) or profit. In agreement with the enterprise, the supervising organ would have the authority to fix the depreciation share below the level of the general repairs and raise proportionally the rate of the profit-

increment share. On the other hand, earnings from the sale of low-quality livestock from the breeding herd can be used only for the improvement of this herd.

Also measures are being prepared concerning the priorities in developing the more backward areas. This development will be financed within the framework of the reserves (especially reserves of the central organs and the councils of the KNV's [Krajsky narodni vybor; Kraj People's Committee], formed in the plan of the investments, work, and wages, and by linking the norms of enterprise material interest to the condition stipulating the execution of certain specific investment operations in a specific area or the spending of a specific volume in that area.

Some specific deviations from the general principles on the norms of the enterprise material interest are under consideration in the local economy. Here, the norms will be determined by the people's committee, sometimes for a shorter period than five years, and will be concentrated mainly on the development of paid services for the general public. Usually, the measures will concern the depreciation shares and profit shares based on the planned growth of the services in the total performance with the possibility of raising the fixed rates under the same or improved conditions. The decentralized development is also financed by the development fund and the auxiliary budgets [supplementary budgets].

The control function of the Czechoslovak State Bank will be strengthened. It will constantly control the formation of the enterprise financial sources and whether they will be used in the most economical way and with the priority in regard to the urgent tasks of the state plan. The Bank must display the incorrect forms of accumulating the enterprise financial sources and use its credit policy so to force the enterprises to use their financial sources in accordance with the material coverage. The role and responsibility of the Bank is being increased especially with regard to the annual complex analyses and final evaluation of the enterprise activities. The methodological instructions give the Czechoslovak State Bank wider power in the preparation of the Five-Year Plan, especially the power of controlling its specification and drawing attention to possible shortcomings.

The Method of the Profit-Share Payments and the Annual Complex Economic Analyses

The most suitable method of the profit-share payments to the state budget has been discussed by the central organs as well as the enterprises since the time the study was prepared on the "principles of raising the economic efficiency of the management in industry and building." The great interest in this matter is based on the importance of these payments for the operation of the chozraschot, the enterprise material interest, and the state-budget revenues. The above "principles" introduced a method of determining the volume of the obligatory payments from profit to the state budget in the annual plans. Of course, the views concerning the interpretation and actual application varied to a great extent. However, the whole problem has been rooted in the fact that the present method of fixed payments from profit has not corresponded to the concept offered by the "principles"; this is the reason why the method has certain shortcomings which have been rightly criticized.

The present method of fixed payments from profit is based on the notion according to which the payments from profit fixed by the state budget and its specification are based on a fixed minimum which is never changed. The results achieved above the plan are shared by both the economic production unit and the state budget; when the profit-formation plan is not fulfilled the enterprise is still obliged to pay the fixed amount, or to ask the Bank for credit in case it has not enough available funds.

This method has the following shortcomings:

a) The task of the payments from profit is based on the expected fulfillment of the profit plan during the past year (base year) and is not changed according to the actual results; the result is that there are disputes concerning the expected fulfillment of the past year, and attempts are made by the economic organizations to underestimate the expected results. This is so despite the fact that the "principles" worked on the assumption that the negotiations on the expected results will lose their importance and that the planning will concentrate on the relative indices and time rates working against the reality of the base year.

b) The undisputable advantage of the method in stabilizing the financial sources of the organs supervising the enterprises and the state budget is achieved at the expense of the initiative of the enterprises in preparing the planned mobilization tasks. Besides that, the stability of the financial sources has its unpleasant aspects reflected in the smaller care of the specification of the planning indices and its smaller effect on the fulfillment of the plan; not only the payments from profit, but also the whole actual profit formation are decisive for the state budget.

c) Actually the fixed minimum of the payments from profit annuls the validity of the long-range norms of the enterprise material interest when the plan of the profit increments is not being fulfilled.

d) The organs supervising the enterprises has little responsibility when there are shortcomings in the specification of the norms of the enterprise material interest and the payments from the profit.

e) Situations can arise when payments are to be made from nonexistent profits (use of credits).

Among the advantages of the present method are its relative simplicity, the binding nature of the tasks fixed in the annual plan forcing the enterprises to detect hidden reserves and eliminate shortcomings, requirement for lesser reserves, and stability of the financial sources of the state budget.

In order to eliminate the above shortcomings it was decided to apply for the Third Five-Year Plan (partly also in 1959 and 1960) new principles concerning the method of payments from profit:

1. The system of fixed payments from profit is left intact (with adjustment mentioned further).

2. The payments from profit are made only up to the level of actual profit and unused funds of the enterprise (operational and investment funds).

3. Payments from profit during the year are made at the level fixed by the state budget and its specification; the results above the plan are shared by the state budget (with the supervising organs) according to the determined norms of the enterprise material interest.

4. Complex analyses of the economic conditions of the past year (base year) are the basis for adjusting the payment obligations (based on the norms of the profit-increment share) by the difference between the actual and expected economic results of the base year (past year).

5. When complex analyses of the economic conditions are made the supervising organ can contribute from its own funds to cover the difference between the actual share (of the profit or profit increment) and the share which would correspond to the determined norm of the enterprise material interest, but only in cases where the worsened economic result was not caused through the guilt of the enterprise (economic production unit).

6. In order to raise the efficiency of the norms of the enterprise material interest in the mobilization nature of the Five-Year Plan concerning the profit formation the ministries (economic production units) can grant privileged rates of the profit-increment shares when the tasks of the plan are larger than was assumed by the directives.

7. The mobilization nature of the annual plans is affected mainly by the norms of the personal material interest; therefore, it is not necessary to complicate the rates of the norms of enterprise material interest by various rating systems during the individual years. However, on the basis of experiences with the preparation of the 1960 plan, the possibility is under consideration to reduce the shares from the profit increment above the plan.

The above solution is based on the "principles." The preservation of the norms of the enterprise material interest for the purpose of the annual plans eliminates the problem of the expected fulfillment of the base year, prevents the payments of nonexistent profit, arranges the relation between the enterprises and their supervising organs by the proper degree of responsibility, and does not reduce the interest of the enterprises (economic production units and ministries) in the mobilization plan. At the same time, this solution preserves advantages of the present system. The principles will be specified in a forthcoming ordinance dealing with the financial sources of some economic organizations of the state socialist sector and with the coverage of losses.

The new system of payments of the shares of profits requires an improvement in the complex analyses and final evaluations of the activity of enterprises and their supervising organs. They will provide a basis for the settlement of arrears and overpayments to the state budget (supervising organ) and will determine the definitive claim of the proper organization for their share of the newly-created sources (especially profit increment and profit) and for allocations for the enterprise workers' fund as well as the bonus fund. The complex analyses should be also used to determine the liquid financial means (on the operational and investment accounts, temporary, frozen, etc.) which could be spent in the future years, final claims based on proposals concerning improvement of the efficiency of investment development, to check the formation and application of the technical development funds, etc.

The new method of payments of the profit shares can be used to balance the payments with the fixed norm of enterprise material interest by means of the financial sources of the supervising organs and will make it possible to determine the volume of the payment obligations of the current (planned) year according to the actual starting base (i.e., the difference between the actual and expected economic results of the past year). The starting base is then adjusted during the drawing of the unearned profit (as long as the profit is not an intentional act against the interests of the society) for the purpose of determining the increment and payment obligations of the coming year. The rights of organizations to be granted privileged rates is also checked. The following is an example (in million koruny):

	1	9	6	1	1	9	6	2
	Plan	Expected Fulfillment	Actual Achievement	After a Complex Analysis	Plan	Adjusted Plan		
Formation of profit	98	100	95	95	120	115+3		
Profit increment	18	20	15	15	20	20+3		
Profit-increment share (1961 = 60%; 1962=50%)	10.8	12	7.8	9	10	10+1.5		
Payments of the profit share	7.2	8	7.2	6	100+10	95+10+1.5		

1. The enterprise did not fulfill the plan of profit formation and did not even fulfill the plan of expected profit. However, it paid its profit share according to the plan during the year and therefore paid a total of 1.2 million koruny more for the year than would correspond to the fixed percentage of the profit-increment share. Because of the fact that the failure to fulfill the profit formation plan was caused by predominantly objective factors, the supervising organ will cover the difference out of its financial means--i.e., it will return 1.2 million koruny of the payments to the enterprise.

2. No unearned or incorrectly earned profits were found; therefore, no sums are drawn and the claim of a 9-million-koruny share is acknowledged.

3. The failure to fulfill the expected plan does not affect the formation of the financial sources of the enterprise in 1960, because the same profit increment can be reached. However, the starting base is reduced by 5 million koruny; the base forms part of the obligation of the profit-share payment in 1960. Therefore, the planned profit-share payment should be adjusted by the difference in the starting base.

4. The specification of the directives of the Five-Year Plan determined a privileged rate for the enterprise in relation to the expected rise in the 100-million-koruny planned five-year profit increment (0.1 percent more each year per one percent of the increased increment). The enterprise improved the plan by 20-percent and consequently acquired a privileged rate improved by two percent each year. However, this improvement is not ensured in 1961, because the planned profit increment is short 3 million koruny (3 percent); therefore, the 1961 rate should be 0.3 percent lower--i.e., 59.7 percent. Because the difference is negligible and there is a possibility of covering the difference during the coming years, the rate is not reduced provided the enterprise raises its planned profit (profit increment) formation in the next year (1962) by the above 3 million koruny.

Profit is an objective criterion for measuring the merits of an enterprise and its workers only if it is achieved in a correct and deserved way in accordance with the planned tasks and interests of the society; therefore, the most important task of the annual complex analyses is a detailed

investigation of all the aspects of the created profit. It is not permissible for an enterprise to retain a profit achieved in an incorrect and undeserved way. These financial means will be taken away with all the consequences for the profit-increment (or profit) shares and for the allocations to the enterprise workers' funds and bonus funds. There are exceptional cases where the unearned profit can be retained for the purpose of specific measures to be taken in the following year.

The following items will be especially investigated: failure to manufacture the planned types of goods; lower quality; changes in the planned requirements of materials, neglecting the technical development and introduction of new products; achievements of better results at the expense of the substance [property]; failure to observe price and invoice regulations; negligence in the care of workers and other better results achieved in an incorrect and undeserved way. The question is now being discussed in which cases the starting base for the profit increment of the next year should or should not be adjusted when there is a profit acquired incorrectly or one undeserved.

	1	9	6	1	1	9	6	2
	Plan	Expected Fulfillment	Actual Achievement	After a Complex Analysis	Plan	Adjusted Plan		
Formation of profit	98	100	110	105	120	125		
Profit increment	18	20	30	25	20	20		
Profit-increment share (1961=60%; 1962=50%)	10.8	12	18	15	10	10		
Payments of the profit share	7.2	8	12	10	100+10	105+10		
Drawing of the undeserved profit (plan of supplementary payments)			(18-15)	3				
Share of the supervisory organ (25%)				0.75				

The supervisory organs take active part in the complex analyses and final evaluations and have a decisive influence in discovering the funds earned in an incorrect and undeserved way; it has therefore been proposed that they receive for their centralized financial sources 25 percent of that profit which was included in the plan of supplementary payments. This share can be divided among the economic production units and ministries.

Details and binding instructions will be included in the proper instructions of the Ministry of Finance. There is a possibility that the size of the share allocated for the supervisory organs might be adjusted on the basis of the supplementary payments on the enterprises. The above principle will not be applied in full for the year 1959.

The Form of the Financial Balance Sheet

There are rather substantial changes in the form of the financial balance sheet. It will not consist of two parts: the balance sheet of the total financial sources and requirements (common to all branches) and the balance sheet of decentralized financing (only for organizations having norms of enterprise material interest). The first part is formally balanced with regard to the state budget, or the budget of the supervisory organs (the difference between the total sources and requirements). The balance of the decentralized-financing balance sheet is created by the rise or fall of the unused (liquid) financial means of the enterprise. The financial balance sheet is computed by balancing the sources with the requirements (profit--loss, rise--fall of the size of liquid means, etc.). Investment credits, including their installment payments, are never compensated.

The appendix to the balance sheet contains various data and supplementary and motivation data, such as the interest rate of the shares of the created sources, conditions for the norms of enterprise material interests and their fulfillment, volume of the general repairs, volume of the special decentralized investment, and volume of investment based on enterprise workers' funds. Also it contains a specification of other revenues (increase in the volume of liabilities, payment of mining damages, etc.) and expenditures (allocations to the enterprise workers' funds, reduction of the permanent

liabilities, subsidies, etc.). In order to be able to control the proposed schedule of paying off the investment credits, the volume of the outstanding investment credits (expected) at the beginning of the Five-Year Plan is appended; long-term, short-term, and rationalization credits are listed separately. Also included are the amounts of the special funds (enterprise workers' fund, development fund, technical-development fund, etc.) at the beginning of the Five-Year Plan.

The method of including in the balance sheets the requirements of the liquid means has been changed. The requirements include the total rise in the requirements of the standardized liquid means, or the sources include their reduction without subtracting the rise or adding the reduction of the permanent liabilities. The rise in the permanent liabilities is included in other revenues and their reduction in other expenditures. This method eliminates the partial balancing of the requirements and sources (which are here an exception), and provides for a better link between the state-wide financial balance sheet of the economic organizations and the summary financial plan.

	1 January	31 December	Difference
Total liquid (standardized) means	100	112	+12
Coverage of the enterprise liquid means	60	75	+15
By permanent liabilities	20	25	+5
By credits:			
for standardized stocks	--	--	--
for seasonal and surplus stocks	20	12	-8

Coupling the Financial Balance Sheet
According to the Present Method

<u>Sources</u>		<u>Requirements</u>	
Part of profit for covering enterprise liquid means	15	Rise in the requirement of liquid means (12-5)	7
		Reduction of the operating credit	8

Coupling the Financial Balance Sheet
According to the New Method

<u>Sources</u>		<u>Requirements</u>	
Part of profit for covering enterprise liquid means	15	Rise in the requirement of liquid means	12
Other revenues: rise in the permanent liabilities	5	Reduction of the operating credits	8

The volume of the decentralized development also includes investments based on the expansion funds (of the state farms, local economy); therefore, the sources of the balance sheet must contain the proper coverage of the decentralized investments by these funds (either on a separate line or included in other revenues). The financial balance sheet no longer includes the means of the enterprise workers' funds and their use as well as the requirements (for instance, investments) financed by them because they belong to the workers--not to the enterprise. Not included are nonstandardized liquid means, especially payments (claims, debts, clearing credits, turnover account).

The form of the other parts of the Five-Year Plan has not changed much. As far as the depreciation plan and the basic fund plans are concerned, the division of the total depreciation volume according to the individual branches (industrial enterprises, construction enterprises, etc.) is replaced by a division according to the activities. This provision links the depreciation plan more closely to the individual production cost plans. The informative indices on the state of the average stocks per koruna of output are omitted from the plan of the liquid means, and included are data on the total volume of stocks in the domestic trade agencies and the supply and selling organizations, as well as data on the total volume of the production and other stocks, stocks of unfinished and finished products, and goods in industrial enterprises (to link the plan of the liquid means to the plan of industrial production cost).

* * *

There are still problems to be solved, such as more power to the enterprises concerning the payments, granting credits

according to the turnover, changes in the plan following price adjustments, etc. It will also be necessary to solve the method of covering losses (probably out of the state budget) of enterprises if they propose a larger production volume or produce surplus goods at a loss where the production is desirable from the social point of view (e.g., steel concrete). The present system of material interest would otherwise not stimulate this kind of production. Of minor importance is the problem of those making the payments to state budget--whether the payments should be made individually by each economic production unit (decentralized districts). The question is becoming less important because of the principle according to which the central organ is liable with its centralized financial means for the payments to the state budget of the entire branch; it should probably be solved by the individual central organs according to their actual requirements and conditions. The financing of various projects is gradually organized within the production cost sector (e.g., polytechnical education, cost of the factory kindergartens, etc.).

The above-mentioned changes in the methods of formulating five-year financial plans and production-cost plans as well as the related changes in the methods concerning the norms of enterprise material interest and financing them are only partly solved by the methodological instructions. Details will be settled by amendments to some regulations, especially the ordinance on the financial sources of some economic organizations of the state socialist sector and the coverage of their losses.

The system of economic stimuli and especially the systems of enterprise and personal material interest are efficient but complicated instruments. Their efficiency will depend on the degree to which they are controlled by the economic workers of the enterprises and the degree to which they are presented to the widest possible number of workers. Therefore, the principle of simplicity should rule all further measures concerning this problem.

Footnote

¹A special article will be devoted to the problems dealing with reserves in plans.--Editor's note

FOR REASONS OF SPEED AND ECONOMY
THIS REPORT HAS BEEN REPRODUCED
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